## STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OUR GAS AND MINING

(Other instructions on reverse side)

	DIVISION OF OIL	, GAS, AND MIN	IING		5. Lease Designation and Serial No. Fee Land
	I FOR PERMIT	TO DRILL, D	EEPEN, OR PLUC	BACK	6. If Indian, Allottee or Tribe Name
	II 🗆	DEEPEN [	PLUG	BACK 🗌	7. Unit Agreement Name
	as Other		Single Zone	Multiple  Zone	8. Farm or Lease Name
2. Name of Operator					Sundance
Pennzoil 3. Address of Operator	Exploration a	nd Production	n Company		9. Well No. 4-15A2
	200. Noola 1	T+ah 94052			10. Field and Pool, or Wildcat
P.O. Box 4. Location of Well (Repo	ort location clearly and i	n accordance with an	y State requirements.*)		> Bluebell-Wasatch ეს5
At surface 1500	FNL and 1600'	FEL (SW NE)			11. Sec., T., R., M., or Blk. and Survey or Area
At proposed prod. zone	Same				Sec. 15, T1S, R2W
14. Distance in miles and 2.5 mi. Sou	direction from nearest tuth and 3.3 mi		ola, Utah		12. County or Parrish 13. State Duchesne Utah
15. Distance from propose location to nearest	HI*		16. No. of acres in lease		of acres assigned
property or lease line. (Also to nearest drig.	ft. — line, if any) 1600 '	-	640	, to tur	s well
18. Distance from propose to nearest well, drillin	d location*		19. Proposed depth		y or cable tools
or applied for, on this	lease, ft. 2	616'	14,200' 657	<u> </u>	Rotary
21. Elevations (Show whet	ed Ground Level	1: 5749'		Α.	22. Approx. date work will start* ug. 31,1991
23.	- Olodia Beve		G AND CEMENTING PROG		<b>4</b> 6. 32,2372
Size of Hole	Size of Casing	Weight per Foo			Quantity of Cement
13 1/2"	10 3/4"	40.5	2500'		1820 cu/ft
9 7/8"		23/26	10.715'		3830_cu/ft
6 1/8"	5"	18	14,200		325 cu/ft
	sed Attachment Permit Will Be	b. Drilling c. BOP Sche d. Map show e. Schemati	ematic ving roadway to l le of rig layout		ion.
3. An AFI	E has been pred	pared and cop	ies have been se	nt to j	AUG 1 4 1991
	est holders for			イル	Programme and the second secon
			•		DIVISION OF OIL GAS & MINING
IN ABOVE SPACE DESC ductive zone. If proposal preventer program, if any.	RIBE PROPOSED PROC	GRAM: If proposal is ectionally, give pertine	s to deepen or plug back, gi ent data on subsurface locati	ve data on pres	ent productive zone and proposed new proposed and true vertical depths. Give blower
24. Danny L, Lama	an	Office: (80	01) 353-4397	Home:	(801) 789-7033
Signed January	Slamm	Title	Area Drilling	Foreman	Date 8 - 12 - 9/
(This space for Federal	or State office use).				BY THE STATE
43-0	ວເລ <i>-</i> 31333			F LITAL	DIVISION OF
Permit No. 1-2	ك وك ك المديد المديد المديد المديد المديد		Approval Date	II GAS	AND MINING
Approved by		Title	DAT	E. S.	27-ON
Conditions of approval,			P.V.		man de la
			WATE		120 1/2
			*VEL	LSPACI	VG: <u>のアーケ</u>

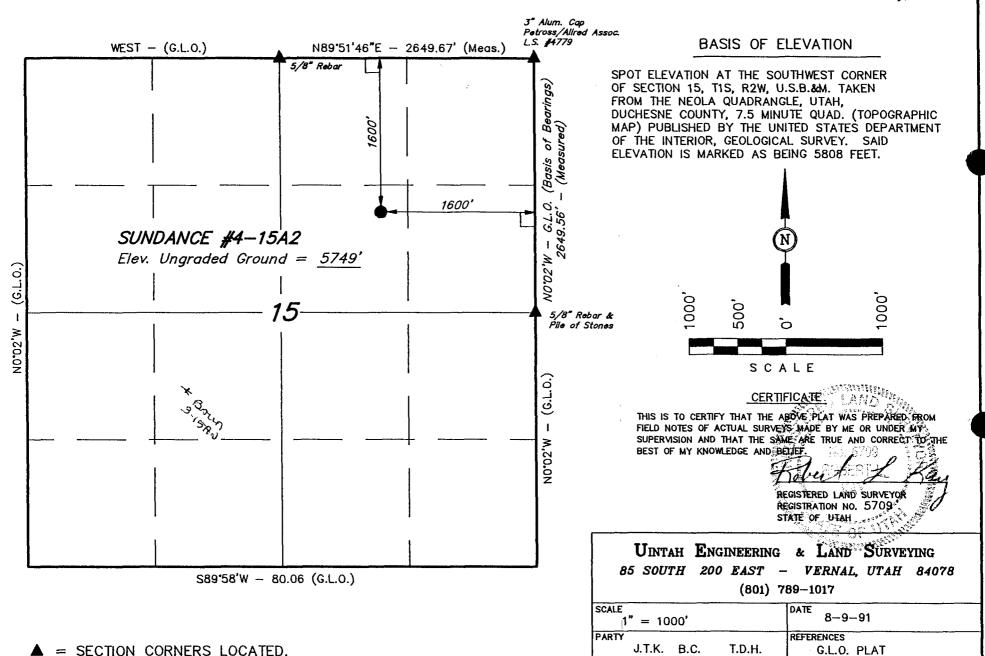
### T1S, R2W, U.S.B.&M.

#### PENNZOIL EXPLR. & PROD. CO.

Well location, SUNDANCE #4-15A2, located as shown in the SW 1/4 NE 1/4 of Section 15, T1S, R2W, U.S.B.&M. Duchesne County, Utah.

G.L.O. PLAT

PENNZOIL EXPLR. & PROD. CO.



WEATHER

HOT

## STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OUL GAS AND MINING

(Other instructions on reverse side)

	DIVISION OF OIL, G	AS, AND MINING	<b>.</b>		5. Lease Designation and Fee Land	Serial No.
<del></del>	FOR PERMIT TO	DRILL, DEEP	PEN, OR PLU	G BACK	6. If Indian, Allottee or	Tribe Name
<ul><li>1a. Type of Work</li><li>DRILL</li><li>b. Type of Well</li></ul>		DEEPEN [	PLUG	BACK [	7. Unit Agreement Name	
	Other	· · · · · · · · · · · · · · · · · · ·	Single Zone	Multiple Zone	8. Farm or Lease Name Sundance	
Pennzoil 3. Address of Operator	Exploration and	Production Co	ompany	-	9. Well No. 4-15A2	
4. Location of Well (Report	290; Neola, Uta	th 84053 cordance with any Stat	te requirements.*)	<del></del>	10. Field and Pool, or Wi Bluebell-Was	
	NL and 1600' FEI	. (SW NE)			11. Sec., T., R., M., or l and Survey or Area	Blk.
At proposed prod. zone					Sec. 15, T1S	
14. Distance in miles and di 2.5 mi. Sout	th and 3.3 mi. V		, Utah		12. County or Parrish Duchesne	13. State Utah
15. Distance from proposed		16.	No. of acres in lease	17. No. of to this		
property or lease line, f (Also to nearest drig, lin	e, if any) 1000	10.1	640	90 13-4	640 or cable tools	
<ol> <li>Distance from proposed to nearest well, drilling, or applied for, on this le</li> </ol>	completed,		Proposed depth 14,200	<u>•</u>	or capie tools Lotary	
21. Elevations (Show whethe	r DF, RT, GR, etc.)  I Ground Level:	5749 <b>'</b>		Δ11	22. Approx. date work	will start*
23.		ROPOSED CASING AN	ID CEMENTING PRO		.6. 31,1371	
Size of Hole	Size of Casing	Weight per Foot	Setting Depth		Quantity of Cement	
13 1/2"	10 3/4"	40.5	2500		1820 cu/ft	
9 7/8"	7''	23/26	10.715'		3830 cu/ft	
6 1/8"	5"	18	14,200'	<b>TECHNIC</b>	LREVIEW cu/ft	
				Engr.	1871 8-22-91	
1. Enclose	C	. Certified I . Drilling Pl . BOP Schemat . Map showing	lan Lic	Geol. Surface	8/19/2/	E
		. Schematic	_		on. S	Win.
2. Water F	Permit Will Be S	ecured Prior	to Spud.			
	has been prepar st holders for t			ent	AUG 1 A DIVISIO OIL GAS &	N OF
N ABOVE SPACE DESCRI luctive zone. If proposal is preventer program, if any.	BE PROPOSED PROGRA to drill or deepen direction	M: If proposal is to denally, give pertinent de	eepen or plug back, g ita on subsurface locat	ive data on prese tions and measure	nt productive zone and preed and true vertical depth	roposed new pro- is. Give blowout
4. Danny L Laman		ffice: (801)	353-4397	Home: (		
Signed Many	Slamm	Title	Area Drilling	g Foreman	Date 9 - 1	2-9/
(This space for Federal o	r State office use)					
Permit No			Approval Date			······································
Approved byConditions of approval, if	f any:	Title			Date	

#### DRILLING PLAN

OPERATOR:

PENNZOIL EXPLORATION & PRODUCTION COMPANY

WELL:

Sundance 4-15A2

WELL LOCATION: 1600' FNL & 1600' FEL

SW1/4 NE 1/4 SEC. 15, T1S R2W

Duchesne County, Utah

#### 1. ESTIMATED TOPS AND IMPORTANT GEOLOGICAL FORMATIONS:

Top Green River	6424'
Green River Trona	7764'
Mahagony Bench	8540'
TGR 3	9775
CP 70	10,599'
TU 2	10,948
Wasatch 200	13,127'
Total Depth	14,200'

#### 2. ESTIMATED OIL AND WATER DEPTHS:

Water NONE ANTICIPATED Oil @ +10,946'TU 2 Oil @ +13,127Wasatch 200

#### 3. HOLE SIZE, CASING, AND CEMENT PROGRAM:

- A. CONDUCTOR HOLE: 0' 60'
  - a. Drill a 36" hole to 60'.
  - b. Set 16" conductor pipe.
  - c. Cement with ready mix concrete at 6 bags per yard.
- B. SURFACE HOLE: 60' 2500'
  - a. Drill a 13 1/2" hole to 2500'.
  - b. Set 10 3/4" 40.5# K-55/S-80 STC.
  - c. Cement to surface with a lead slurry of a low density filler and tail in with 200 sks. Class "G".
- C. INTERMEDIATE HOLE: 2500' 10,715'
  - a. Drill a 9 7/8" hole to 10,715'.
  - b. Set 7" 23#/26# N-80/S-95 LTC.
  - c. Cement to surface with a DVT at approximately 8540'. First stage: 50/50 Poz "G" with additives tailored for depth and temp. Second stage: A lead cement from approx. 5924' to surface with a low density filler and tail in with a 50/50 Poz. "G" tailored for depth and temp.

A. PRODUCTION HOLE: 10,715' - 14,200' a. Drill a 6 1/8" hole to 14,200'. b. Hang a 5" 18# N-80 FL4S liner. c. Cement liner with a Class "G" cement tailored for depth and temp. 4. OPERATOR'S PRESSURE CONTROL PLAN: Figure no. 1 is a schematic of minimum BOP equipment. The BOP equipment will be nipple up on the surface casing string and pressure tested prior to commence drilling. A. All rams and choke manifold will be tested to 5000 psi. b. Bag preventor will be tested to 50% of its rated working pressure. c. 7" casing strings will be tested to 4000 psi. or 0.2 psi/ft per depth, which every is greater. d. Record all BOP test on tour reports. e. Retest BOP stack every 28 days. f. Fill up line above the bag preventer. g. Kill line located below the double BOP rams. Operational Checks: a. Pipe rams will be closed and opened once each 24 hours. b. Blind rams will be closed and opened each time the drill string is pulled from the well bore. 5. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT: a. Upper and lower kelly cocks will be utilized. b. A full opening drill pipe stabbing valve. c. PVT equipment will be used to monitor the mud system when drilling the production hole. 6. PROPOSED DRILLING FLUID PROGRAM: A. SURFACE HOLE: 60' - 2500' a. Drill from 60' to 2500' with a 36 viscosity in steel pits. Then continue drilling with fresh water, circulating reserve pit using lime and flocculate to keep fluid clean. b. All severe water flows will be contain with barite and gel. B. INTERMEDIATE HOLE: 2500' - 10,715' a. Drill out with fresh water circulating reserve pit using lime and flocculate as needed to keep fluid clean. Barite, polymers, and gel will be used as wellbore dictates due to pressure or hole condition. b. Final fluid properties: 9.5 ppg. gelled brine water. Page 2

C. PRODUCTION HOLE: 10,715'-14,200

a. Drill out with the existing mud system. Barite, polymers, and gel will be used as wellbore dictates due to pressure and hole condition.

b. Final fluid properties: 13.0/13.5 ppg. 40/55 vis. 8/10 wl. 20/30 yp.

#### 7. WELL BORE EVALUATION:

a. CORING:

b. DRILL STEM TESTING:

None Anticipated

None Anticipated

c. LOGS: Production hole Dual Induction Lateral

Gamma Ray

Formation Density BHC-Sonic Micro-SFL Four Arm Caliper

d. COMPLETION: The objective formation is one of the oil

zones in the Wasatch Formation.

Selected intervals will then be perforated

and evaluated for stimulation work.

#### 8. PRESSURE AND TEMPERATURES:

- a. No abnormal pressure or temperature have been noticed or reported in wells drilled in this area.
- b. Estimated bottom hole temperatures : 238 degrees
- c. Estimated bottom hole pressure: 9600 psi

#### 9. ANTICIPATED STARTING DATE:

- a. Construction will probably start within 30 days of permit approval.
- b. The well will probably be spudded within 10 days of well site completion.

#### 10. OTHER INFORMATION:

- a. Topography: Virgin rolling hills
- b. Soil Characteristics: Bentonitic clays and sand.
- c. Flora: Pasture grasses, juniper, sagebrush, and cacti.
- d. Fauna: Domestic: None

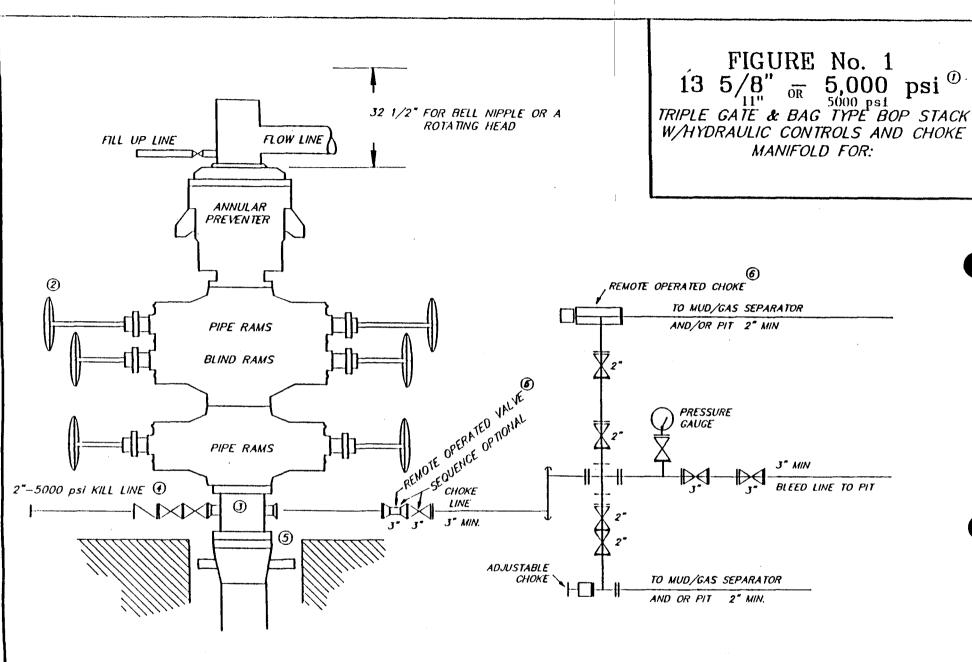
Wildlife: - Deer, Rodents, Grouse, etc.

- e. Surface Use: None
- f. Surface Owner: Dominic Giangregorio; Hawthorn, California

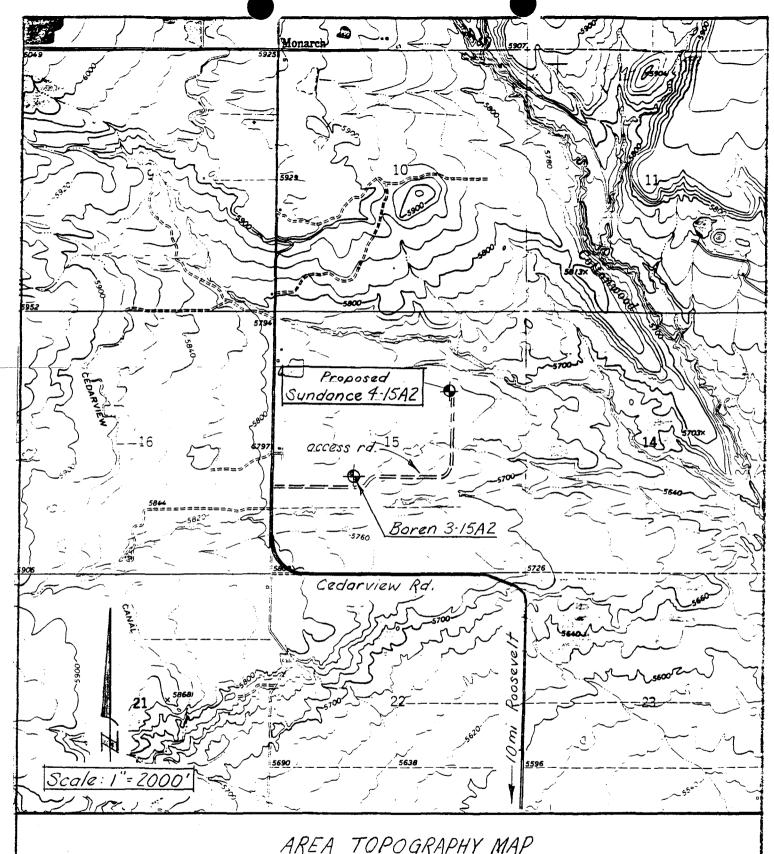
#### . LEASEE'S OR OPERATOR'S REPRESENTATIVE:

George P. SanFilippo, Vice President of Western Operations Danny L. Laman, Area Drilling Foreman (801) 353-4397

12. This well will be drilled per regulations as set forth by the State of Utah Natural Resource Oil, Gas, & Mining Division.



- (1) = ALL BOP CONNECTIONS SUBJECTED TO WELL PRESSURE SHALL BE FLANGED, WELDED OR CLAMPED.
- (2) = HAND WHEELS FOR EACH SET OF RAMS UNLESS EQUIPPED WITH AUTO LOCK.
- (3) = DRILLING SPOOL UNLESS BOTTOM BOP EQUIPPED WITH SIDE OUTLETS.
- (4) = KILL LINE W/2-2" VALVES & 1-2" CHECK VALVE WITH KILL LINE TO OUTER EDGE OF THE SUB STRUCTURE.
- (5) = TOP OF CASING HEAD FLANGE WILL BE AT GROUND LEVEL.
- (6) = REMOTE CONTROLS ON RIG FLOOR.



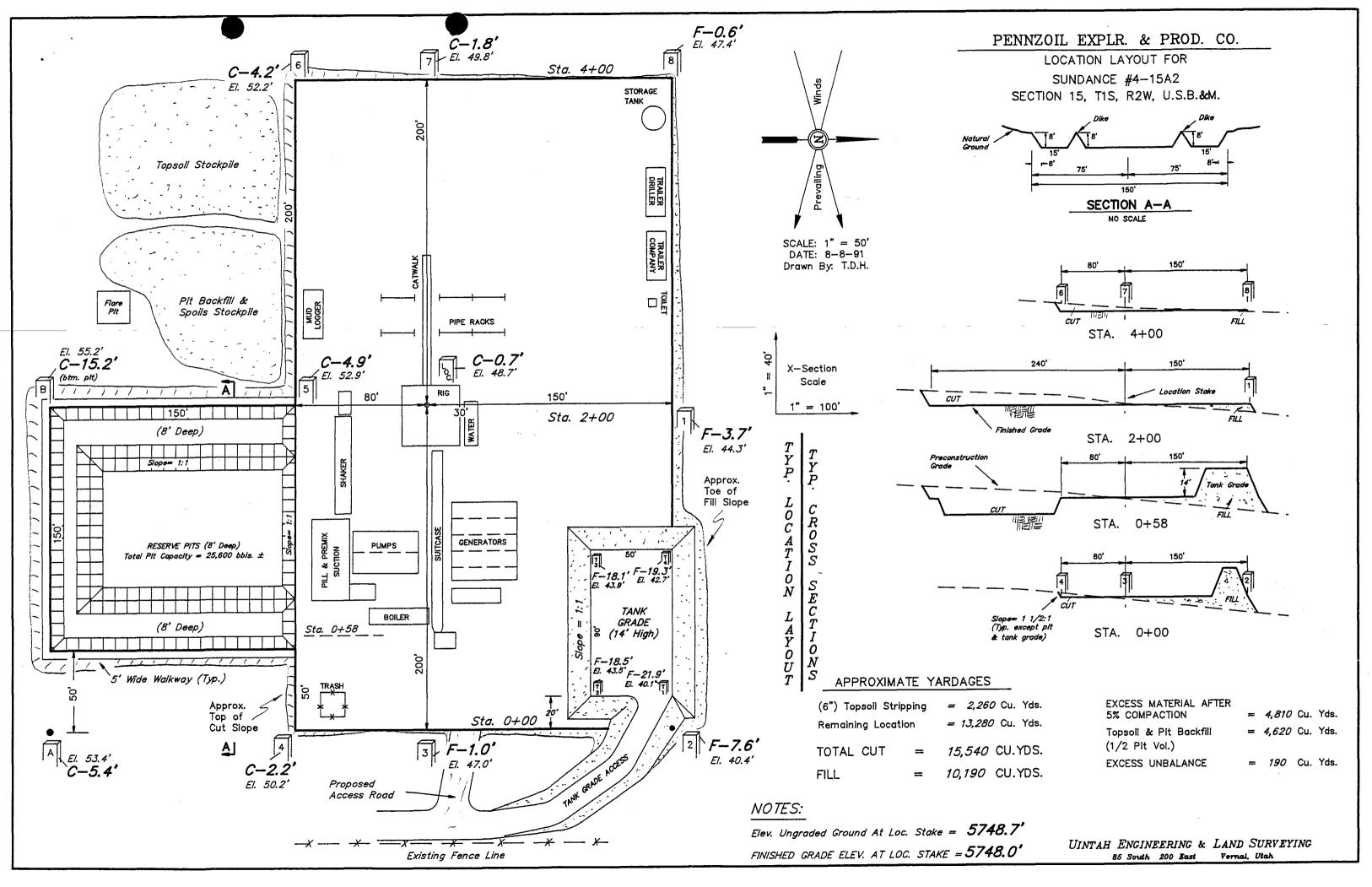
AREA TOPOGRAPHY MAP

For The Proposed: SUNDANCE 4-15A2

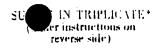
1600' FNL and 1600' FEL, SW NE Sec. 15, TIS, RZW

Duchesne County, Utah

Submitted to Utan Division Oil, Gas, & Mining by Pennzoil Explor & Prod. Co.



# DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING



DI	Fee Land				
	OTICES AND REI		ON WELLS back to a different reservoir. ropossis.)	6. IF INDIAN, ALLOTTS	E OR TRIBE SAM
1.			· · · · · · · · · · · · · · · · · · ·	7. UNIT AGREEMENT N	AME
MALL X MALL OTH	rr				
2. NAME OF OPERATOR		_	•	8. FARM OR LEASE HA	MB
Pennzoll Explora	tion and Product:	ion Comp	any	Sundance 9. Wall No.	
P.O. Box 290; Ne	ola, Utah 84053	3		4-15A2	
4. LOCATION OF WELL (Report locations See also space 17 below.)		ce with any	State requirements.	10. FIELD AND POOL, O	R WILDCAT
At surface	1 16001 PPI (G	7 3773		Bluebell-Wa	
1600' FNL an	d 1600 FEL (SV	V NE)		11. SEC., T., B., M., OR SURVEY OR AREA	BLE. AND
	•			Sec. 15, T1	S. R2W
14. PERMIT NO.	15. BLEVATIONS (Short	whether pr.	RT. CR. etc.)	12. COUNTY OR PARISH	
	57	749' (GL	)	Duchesne	Utah .
10. Charle	Appropriate Roy To I	ndicate N	ature of Notice, Report, or	Other Data	_
	MINITION TO:	ildicale it	•	OURNT ERPORT OF:	
TEST WATER SHUT-OFF FRACTURE TREAT	PULL OR ALTER CASING MULTIPLE COMPLETE		WATER SHUT-OFF FRACTURE TREATMENT	ALTERING CA	. —
SHOOT OR ACIDIZE	ABANDON*		SHOUTING OR ACIDIZING	ABANDONME	
REPAIR WELL	CHANGE PLANS	X	(Other)		
(Other)			(Norz: Report result Completion or Recomp	s of multiple completion pletion Report and Log for	on Weil m.)
on June 14, 1 at 1600' FNL/ Please receive	991. On August 7 1600' FEL. The	, 1991, name was D for th	Formation for the pro Pennzoil re-staked to s also changed to <u>Sun</u> ne <u>Sundance 4-15A2</u> an	he proposed locadance 4-15A2.	tion
DIV	1 4 1991 SION OF S & MINING	*	TIGHT	HOLE	
18. I hereby certify that the foregoin  81GNED	/	P TLE	etroleum Engineer	DATE	/91
(This space for Federal or State	office use)				
APPROVED BY COMMITTEE OF APPROVAL, I		rle		DATE	

## PENNZOIL EXPLORATION AND PRODUCTION COMPANY

P. O. BOX 290 • NEOLA, UTAH 84053 • (801) 353 - 4397

August 12, 1991

State of Utah, Department of Natural Resources Division of Oil, Gas, and Mining 355 West North Temple 3 Triad Center; Suite 350 Salt Lake City, Utah 84180-1203

RE: Application for Permit to Drill
Sundance 4-15A2
1600' FNL & 1600' FEL
SW1/4 NE1/4 Sec. 15, T1S R2W
Duchesne County, Utah

#### Gentlemen:

The original and two copies of captioned APD are enclosed for your review and I trust your approval. Pennzoil Exploration and Production Company requests that this APD and all related information submitted on this well be held confidential for that period of time permitted by regulations and law.

Please cancel and void the previously submitted Boren 4-15A2 and consider the Sundance 4-15A2 as an alternate.

Sincerely,
Pennzoil Exploration and Production Company

DR Landstond

D.R. Lankford Petroleum Engineer

Enclosure

AUG 1 4 1991

DIVISION OF OIL GAS & MINING

#### DRILLING LOCATION ASSESSMENT

## State of Utah Division of Oil, Gas and Mining

OPERATOR: PENNZOIL EX. AND PROD. CO. NAME: SUNDANCE 4-15A2

SECTION: 15 TWP: 1S RNG: 2W LOC: 1600 FNL 1600 FEL

QTR/QTR SW/NE COUNTY: DUCHESNE FIELD: ALTAMONT/WASATCH

SURFACE OWNER: DOMINIC GIANGREGORIO

SPACING: 660 F SECTION LINE 1320 F ANOTHER WELL INSPECTOR: BRAD HILL DATE AND TIME: 8/9/91 10:50

PARTICIPANTS: Don Lankford-Pennzoil; Daniel J. Jarvis-DOGM

<u>REGIONAL SETTING/TOPOGRAPHY:</u> The proposed location is in the northwest Uinta Basin in an area of low rounded hills made up of sand hills stabilized by vegetation.

#### LAND USE:

CURRENT SURFACE USE: Domestic grazing.

PROPOSED SURFACE DISTURBANCE: A rectangular shaped pad will be constructed with approximate dimensions of 400'X 220' with a 150'X 150' extension for a reserve pit. Approximately .5 miles of access road will be constructed.

AFFECTED FLOODPLAINS AND/OR WETLANDS: None

FLORA/FAUNA: Sage, Prickly Pear, Greasewood, Cheat Grass, Rabbit Brush, Tumbleweed/Rabbits, Birds, Gnats

#### ENVIRONMENTAL PARAMETERS

#### SURFACE GEOLOGY

SOIL TYPE AND CHARACTERISTICS: Fine sand

SURFACE FORMATION & CHARACTERISTICS: Quaternary Alluvium

EROSION/SEDIMENTATION/STABILITY: No active erosion or sedimentation at present. Location should be stable.

PALEONTOLOGICAL POTENTIAL: None Observed

#### SUBSURFACE GEOLOGY

OBJECTIVES/DEPTHS: Tu 2-10,946'; Wasatch 200-13,127'

ABNORMAL PRESSURES-HIGH AND LOW: None Anticipated

CULTURAL RESOURCES/ARCHAEOLOGY: NA

CONSTRUCTION MATERIALS: Onsite materials will be used for construction.

SITE RECLAMATION: As per landowner instructions.

#### RESERVE PIT

CHARACTERISTICS: An square shaped reserve pit will be constructed with dimensions of 150'X 150'X 8'.

LINING: The reserve pit is to be lined with a synthetic liner.

MUD PROGRAM: See APD

DRILLING WATER SUPPLY: Not specified

#### STIPULATIONS FOR APD APPROVAL

Reserve pits to be lined with a synthetic liner of 12 mil minimum thickness.

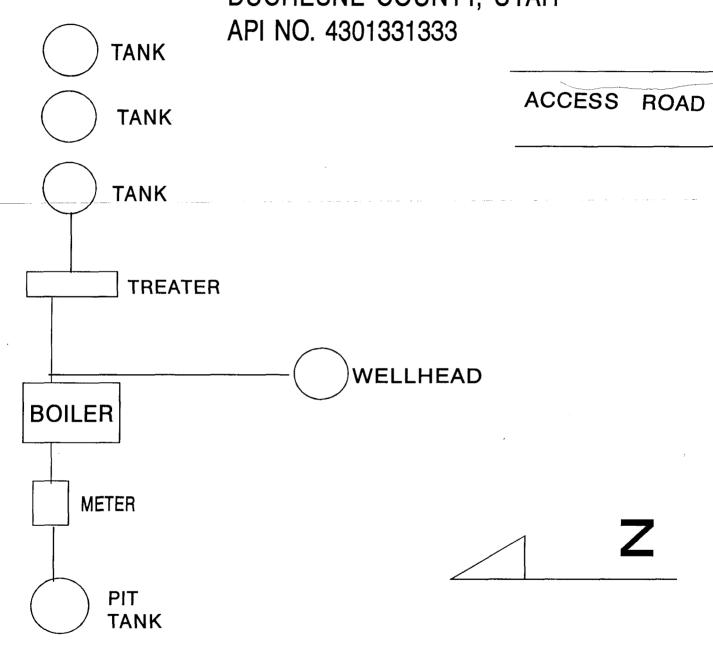
#### **ATTACHMENTS**

Photographs will be placed on file.

OPERATOR PERMITS DECONITION DATE 80091	
WELL NAME Sundance 4-15AV	•
SEC SWAF 15 T 15 R NW COUNTY Duchesie	
43-013-31333 API NUMBER TYPE OF LEASE	
CHECK OFF:	
PLAT.  80ND  80,000  WELL  WELL	
LEASE FIELD POTASH OR OIL SHALE	
PROCESSING COMMENTS:  talls With Frank No quidilines - Bour 4:15 Ad (OPA'd).  Water Print  Processing Comments:  Processing Comments	
the Boren well will be VA'd.	
APPROVAL LETTER:	
SPACING: R615-2-3 NA UNIT	
139 40 4-17-85 CAUSE NO. & DATE R615-3-3	
STIPULATIONS:  PERIOD  EXPIRED  ON 3-2-9	IAL 3
Reserve pet to be lined with a Synthetic liner of	<del>elle garac</del> ere
12 mil minimum thickness.	
	•

# LOCATION PLAT

SUNDANCE 4-15A2 SEC.15 T.1S R2W DUCHESNE COUNTY, UTAH API NO. 4301331333





Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

801-538-53

355 West North Temple 3 Triad Center, Suite 350 Salt Lake City, Utah 84180-1203 801-538-5340

August 22, 1991

Pennzoil Exploration & Production Company P. O. Box 290 Neola, Utah 84053

#### Gentlemen:

Re: <u>Sundance 4-15A2 Well, 1600 feet from the North line, 1600 feet from the East line, SW NE, Section 15, Township 1 South, Range 2 West, Duchesne County, Utah</u>

Approval to drill the referenced well is hereby granted in accordance with the Order in Cause No. 139-42 dated April 17, 1985, subject to the following stipulations:

- 1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Utah Code Ann. Section 73-3, Appropriation.
- 2. Pennzoil Exploration & Production Company, as designated operator, is the bonded principal in reference to this Application for Permit to Drill. Should this designation change or a transfer of ownership occur, liability will remain with the designated operator until the Division is notified by letter of a new bonded principal.
- 3. Reserve pit to be lined with a synthetic liner of 12 mil. minimum thickness.

In addition, the following actions are necessary to fully comply with this approval:

- 1. Spudding notification within 24 hours after drilling operations commence.
- 2. Submittal of Entity Action Form 6, within five working days following spudding and whenever a change in operations or interests necessitates an entity status change.
- 3. Submittal of the Report of Water Encountered During Drilling, Form 7.

Page 2 Pennzoil Exploration & Production Company Sundance 4-15A2 August 22, 1991

- 4. Prompt notification in the event it is necessary to plug and abandon the well. Notify Frank R. Matthews, Petroleum Engineer, (Öffice) (801) 538-5340, (Home) (801) 476-8613, or R. J. Firth, Associate Director, (Home) (80I) 571-6068.
- 5. Compliance with the requirements of Utah Admin. R.6I5-3-20, Gas Flaring or Venting.
- 6. Prior to commencement of the proposed drilling operations, plans for facilities for disposal of sanitary wastes at the drill site shall be submitted to the local health department. These drilling operations and any subsequent well operations must be conducted in accordance with applicable state and local health department regulations. A list of local health departments and copies of applicable regulations are available from the Department of Environmental Quality, Division of Drinking Water/Sanitation, telephone (80I) 538-6159.
- 7. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-013-31333.

Sincerely,

Associate Director, Oil & Gas

tas

Enclosures

cc: Bureau of Land Management

J. L. Thompson

we14/1-3

# CONFIDENTIAL

DIVISION OF OIL, GAS AND MINING

WATER PERMIT OK

## SPUDDING INFORMATION

API NO. 43-013-31333

NAME OF COMPANY: PEN	NZOIL EXPLORA	TION & P	RODUCTION	[		<b></b> .
WELL NAME: sun	DANCE 4-15A2					<u> </u>
SECTIONSWNE 15 TOWNSH	HIP <u>1s</u>	RANGE_	2W	COUNTY	DUCHESNE	
DRILLING CONTRACTOR	DRY HOLE		· · · · · · · · · · · · · · · · · · ·	•.		
RIG #	• • • • • • • • • • • • • • • • • • • •			; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	• •	<u></u>
SPUDDED: DATE 9-12-91		•		. • .	·. •	
TIME 2:30		••				•
HOW DRY HOL	<u>E</u>	•		•		
D					• • • • • •	
DRILLING WILL COMMENCE_	•		••••		٧,	
REPORTED BY DON LONG	GFORD				· · · · · · · · · · · · · · · · · · ·	
TELEPHONE # 353-439	7					
	· .	·			-	
DATF 9-	-1391		SIGNED_	т.	AS/FRM	

QUE SYSTEM EMBRACES FIFTY-THREE THOUSAND ACRES OF FINE CULTIVATED LAND IN THE HEART OF THE UINTAN BASIN

Capital Stock \$800,000

P. O. Box 265 Roosevelt, Utah 84066

August 29, 1991

Utah Water Division 152 East 100 North Vernal, Utah 84078

RE: Temporary use for drilling of an oil well with Dry Gulch Irrigation Water shares owned by Duane Boren. Section 15: T1S, R2W.

#### TO WHOM IT MAY CONCERN:

This letter gives authorization to use Dry Gulch Irrigation Water that is to be stored in an existing pond in Section 15: T1S, R2W. This water is to be used for drilling of an oil well.

Dry Gulch Irrigation Company gives Duane Boren permission to sign a temporary use application for subject water shares.

Yours truly

Glenna Brotherson

inna Bretherson

Secretary



## DEPARTMENT OF NATURAL RESOURCES DIVISION OF WATER RIGHTS

Norman H. Bangerter
Governor

Dee C. Hansen
Executive Director
Robert L. Morgan
State Engineer

Eastern Area State/County Building 152 East 100 North Vernal, Utah 84078-2110 801-781-0770 x 327

September 5, 1991

Dry Gulch Irrigation Company c/o Pennzoil Exploration and Production Company P. O. Box 290 Neola, UT 84053

> RE: Temporary Change t91-43-09 Water Right No. 43-3093

Dear Mr. Lankford:

The above numbered Temporary Change Application has been approved subject to prior rights. This is approved under Water Right No. 43-3093 (A3062) owned by Duane Boren.

A copy is herewith returned to you for your records and future reference.

Sincerely,

Robert W. Leake, P.E.

Regional Engineer

For Robert L. Morgan, P.E.

State Engineer

RWL/bmw

Enclosure

copy to: Dry Gulch Irrigation Company

Duane Boren

September 5, 1991

Duane Boren Montwell, Utah

Utah Division of Water Rights 152 E. 100 N. Vernal, Utah 84078

SUBJECT: Selling Water to Pennzoil

To the Division of Water Rights:

I intend to furnish water to Pennzoil Exploration and Production Company, P.O. Box 290; Neola, Utah, for the use of drilling an oil well in Sec. 15, T1S, R2W, in Duchesne County, Utah.

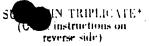
Please grant temporary change of permit to allow me to do so.

Signed

Duane Boren

APPROVED BY CUMDAL. 'S OF APPROVAL, IF ANY:

# STATE OF UTAH



DATE

OF DEDARCTMENT OF MATE	least teacher	side)
DEPARTMENT OF NATU		5. LEASE DESIGNATION AND SERIAL NO.
DIVISION OF OIL, GA	AS, AND MINING	Fee Land
		6. IF INDIAN, ALLOTTER OR TRIBE NAME
SUNDRY NOTICES AND R	eports on wells	V. Is Indian, accounts on the
(Do not use this form for proposals to drill or to de Use "APPLICATION FOR PERMIT		
	(or such proposate.)	
OIL OIL O		7. UNIT AGREEMENT NAME
WELL X WELL OTHER		
. NAME OF OPERATOR		8. FARM OR LEASE NAME
Pennzoil Exploration and Produ	ction Company	Sundance
. ADDRESS OF OPERATOR		9. WELL NO.
P.O. Box 290; Neola, Utah 840	53 .	4-15A2
LOCATION OF WELL (Report location clearly and in accord		10. FIELD AND POOL, OR WILDCAT
See also space 17 below.) At surface		Bluebell-Wasatch
1600' FNL and 1600' FEL	(SW NE)	
1000 11.2 41.4 1000 1111	(bw HL)	11. SEC. T., E., M., OR BLK. AND SURVEY OR AREA
	•	0 15 010 001
		Sec. 15, T1S, R2W
PERMIT NO. 15. BLEVATIONS (S.	now whether DF, RT, GR, etc.)	12. COUNTY OR PARISH 15. STATE
API 43-013-31333 574	9' (GL)	Duchesne Utah.
Check Appropriate Box To	Indicate Nature of Notice, Report, or	Other Data
NOTICE OF INTENTION TO:	auban.	UENT REPORT OF:
TIST WATER SHUT-OFF PULL OR ALTER CASIN	WATER SHUT-OFF	REPAIRING WELL
FRACTURE TREAT MULTIPLE COMPLETE	FRACTURE TREATMENT	ALTERING CABING
SHOOT OR ACIDIZE ABANDON®	SHOUTING OR ACIDIZING	ABANDONMENT*
REPAIR WELL CHANGE PLANS	(Other)	Water Permit X
(Other)	(Norz: Report result	s of multiple completion on Well pletion Report and Log (orm.)
Water Permit has been security See Enclosed Attachments:	1. Application For Temporary 2. State Approval for Tempor	Change of Water
	2. beate Approvar for Tempor	ary Change.
	3. Permit Holder's Request f	or Temporary Change.
IGHT HOLE	4. Authorization for Tempora holder from Dry Gulch Irr	
	SE	P 0 9 1991
		VISION OF IAS & MINING
I hereby certify that the foregoing is true and correct	Petroleum Engineer	9/6/91
SIGNED	TITLETOTTOTEUM ENGINEET	DATE
(This space for Federal or State office use)		

# APPLICATION FOR TEMPORAN CHANGE OF WATER Rec. by

#### STATE OF UTAH

Rec. by .	
Fee Paid \$	
Receipt #	
Microfilmed .	
Roll #	

For the purpose of obtaining permission to make a temporary change of water in the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of Section 73-3-3 Utah Code Annotated 1953, as amended.

rec	quirements of Section 73-3-3 Utah Code Annotated 1953, as amended.
CHA	NGE APPLICATION NUMBER: t91-43-09 WATER RIGHT NUMBER: 43 - 3093
***	This Change Application proposes to change the POINT(S) OF DIVERSION, PLACE OF USE, and NATURE OF USE.
1.	OWNERSHIP INFORMATION.
	A. NAME: Dry Gulch Irrigation c/o Pennzoil Exploration and Production Company ADDRESS: P. O. Box 290, Neola, UT 84053
	B. PRIORITY OF CHANGE: September 5, 1991 FILING DATE: September 5, 199
	C. RIGHT EVIDENCED BY: A3062
	*
	* DESCRIPTION OF CURRENT WATER RIGHT:
2.	SOURCE INFORMATION.
	A. QUANTITY OF WATER: 42.0 cfs
-	B. DIRECT SOURCE: Uinta River COUNTY: Duchesne
	<ul> <li>C. POINT OF DIVERSION SURFACE:         <ul> <li>(1) N 317 feet E 1143 feet from SW corner, Section 31, T 2N, R 1W, USBM DIVERT WORKS: Cedarview Canal SOURCE: Uinta River</li> </ul> </li> </ul>
3.	WATER USE INFORMATION.
<b>.</b>	IRRIGATION: from Mar 1 to Nov 30. IRRIGATING: 1,284.20 acres.
^	

4. PLACE OF USE. (Which includes all or part of the following legal subdivisions:)

				NOI	₹TH-	-EAS	ST4	 NOF	₹TH-	-WES	STI		SOL	JTH-	-WES	ST ‡		SOL	JTH.	-EAS	T [
BASE	TOWN	RANG	SEC	NE	NW	SW	SE	NE	NW	SW	SE		NE	NW	SW	SE		NE	NW	SW	SE
US	1\$	2W	3		X	X		X	X	Χ	_ X		Χ		Х	Χ				X	
			4															Χ			X
			9	Χ			χ											Х	Χ	Χ	X
			10		X	Χ	Χ	X	χ	Χ	X	-		X			-	Χ			
			11							Χ											
			14										Χ		X	Χ				Χ	X
			15			X		X	Χ	Χ	Χ		Χ	X					Х		
			16	X	Х	Х	Χ				Χ		Χ			Χ		Χ	Χ	Χ	Х
			21	X	Χ	Χ	Χ											Х			X
			22			Χ	Χ	Х	Χ			***		X	X			Χ	Χ	Х	Χ
			27	Χ	Χ	χ		Х	χ	X	Χ		X	X	X	Χ		Χ	Χ	Χ	Χ
			28	Χ			χ											Χ	Χ	Χ	X
			33	X	X																
			34	Χ	Χ			Χ	χ	Χ	X		χ	Χ							
			35						Χ	X											

THE FOLLOWING CHANGES ARE PROPOSED:

#### SOURCE INFORMATION. 5.

QUANTITY OF WATER: 20.0 acre-feet

**REMAINING WATER:** Same as HERETOFORE

В. DIRECT SOURCE:

Unnamed pond

**COUNTY:** Duchesne

POINT OF DIVERSION -- SURFACE: Changed as Follows:

(1) N 2500 feet E 400 feet from St corner, Section 15, T 1S, R 2W, USBM

DIVERT WORKS:

Pump into tank trucks SOURCE:

Pond belonging to Duane Boren

D. COMMON DESCRIPTION: 3 miles southwest of Neola

WATER USE INFORMATION. Changed as Follows:

OIL EXPLORATION from 09/05/91 to 03/05/92. Drilling and completion of oil well.

7. PLACE OF USE. Changed as Follows:

(Which includes all or part of the following legal subdivisions:)

				NOF	RTH-	-EAS	ST <del>1</del>	 NOI	RTH-	-WES	ST 4		SOU	TH-	-WES	ST <del>1</del>	SOL	JTH.	- EAS	T 1
BASE	TOWN	RANG	SEC	NE	NW	SW	SE	 NE	NW	SW	SE		NE	NW	SW	SE	NE	NW	SW	SE
US	18	2W	15	X	Χ	Χ	Χ					-								

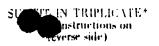
#### 8. SIGNATURE OF APPLICANT(S).

The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application, through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained herein, at the time of filing, rests with the applicant(s).

Signature of Applicant(s)

APPROVED BY CUMULL. "3 OF APPROVAL, IF ANY:

# DEPARTMENT OF NATURAL RESOURCES

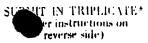


DATE \_\_

DIVISION OF OIL, GA		5. LEASE DESIGNATION AND SERIAL NO. Fee Land
SUNDRY NOTICES AND R  (Do not use this form for proposals to drill or to de  "APPLICATION FOR PERMIT		6. IF INDIAN, ALLOTTER OR TRIBE NAM
i.		7. UNIT AGREEMENT NAME
WELL WELL OTHER  2. NAME OF OPERATOR		8. PARM OR LEASE NAME
Pennzoil Exploration and Produc	ation Company	
3. ADDRESS OF OPERATOR	ection company	Sundance
	4053	4-15A2
4. LOCATION OF WELL (Report location clearly and in according See also space 17 below.) At surface	ance with any State requirements.	10. FIELD AND POOL, OR WILDCAY Bluebell-Wasatch
1600' FNL and 1600' FEL	(SW NE)	11. SEC., T., S., M., OR SLE. AND
		Sec. 15, T1S, R2W
14. PERMIT NO. API 43 013 31333 15. SLEVATIONS (S)	(GL)	12. COUNTY OR PARISH 18. STATE  Duchesne Utah
Check Appropriate Box To	Indicate Nature of Notice, Report,	or Other Data
NOTICE OF INTENTION TO:		REQUERT REPORT OF:
TIST WATER SHUT-OFF PULL OR ALTER CASIN	G WATER SHUT-OFF	RETAIRING WELL
FRACTUBE TREAT MULTIPLE COMPLETE	FRACTURE TREATMENT	ALTERING CASING
SHOOT OR ACIDIZE ABANDON®	SHOUTING OR ACIDIZING	** THE MOUNT ABA
REPAIR WELL CHANGE PLANS	(Other) Conducto	r Hole Spud Notification X
(Other)	(Norg: Report re	pults of muitiple completion on Well ompletion Report and Log (orm.)
Conductor hole was spudded by E		O PM 9/12/91.  SEP 1 6 1991
		DIVISION OF OIL GAS & MINING
18. I hereby certify that the foregoing is true and correct  SIGNED	Petroleum Engineer	DATE 9/13/91
(This space for Federal or State office use)		

TITLE \_

# TATE OF UTAH



DEPARTMENT OF NATURAL RESOURCES	M#1. 3	
DIVISION OF OIL, GAS, AND MINING	5. LEASE DESIGNATION	AND SERIAL NO.
	Fee Lan	d
CUNDON MOTICES AND DEPOSITS ON MELLS	6. IF INDIAN, ALLOTTE	SMAR SHIRT SO S
SUNDRY NOTICES AND REPORTS ON WELLS  (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  Use "APPLICATION FOR PERMIT—" for such proposals.)		
i.	7. UNIT AGREEMENT N	AMB
OIL WELL OTHER		
2. NAME OF OPERATOR	8. FARM OR LEASE NA	MB
Pennzoil Exploration and Production Company 3. ADDRESS OF OFFRATOR	Sundance	
P.O. Box 290; Neola, Utah 84053	4-15A2	-
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.	10. FIELD AND POOL, O	# WILDCAT
See also space 17 below.) At surface	Bluebell-Wasa	
	11. ASC., T., E., M., OS I	
1600' FNL and 1600' FEL (SW NE)	į	
	Sec. 15, T18	5, R2W
14. PERMIT NO. 15. SLEYATIONS (Show whether OF, RT, QR, etc.)	12. COUNTY OR PARISH	18. STATE
API 43 013 31333   5749' (GL)	Duchesne	Utah -
Check Appropriate Box To Indicate Nature of Notice, Report, or C	ther Data	
	ENT EMPORT OF:	
TIST WATER SHUT-OFF PULL OR ALTER CASING WATER SHUT-OFF	7	
TIST WATER SHUT-OFF PULL OR ALTER CASING WATER SHUT-OFF FRACTURE TREAT MULTIPLE COMPLETE PRACTURE TREATMENT	REPAIRING V	<del></del>
SHOOT OR ACIDIZE ABANDON® SHOOTING OR ACIDIZING	ABANDONMEN	
REPAIR WELL CHANGE PLANS (Other)	Report of S	
(Other) (Norz: Report results	of multiple completion of the Report and Log for	on Well m.)
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical	including estimated date	of starting any
nent to this work.) *		and since perce
Tt-11		
Well was spudded with Forwest Rig 5 at 1:00 PM 9/23/91	• .	
		-
TIGHT HOLE		
		•
TIGH!		
SEP 2 (	6 1991	
DIVISIO	NOF	
OIL GAS &	MINING	

18. I hereby certify that the foregoing is true and correct Petroleum Engineer DATE TITLE (This space for Federal or State office use) TITLE . DATE \_

STATE OF UTAH DIVISION OF OIL, GAS AND MINING ENTLTY ACTION FORM - FORM 6

OPERATOR	Pennagoil Expl. + Prod. Co.
ADDRESS	P.O Box 2961
	Houston, Tx 11252-2961

OPERATOR ACCT. NO.

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	. WELL NAME	QQ	sc	WELL TP	LOCATIO	COUNTY	SPUD DATE	EFFECTIVE DATE
A	99999	11269	430133133300	Sundance 4-15A2	SWNE	15	15	2W	Duchesne	9/23/91	9/23/91
WELL 1 C	OMMENTS:	Fee-Leas	se Propiz	one-WSTC							
		Field-Bl Unit-N	uebell Enti	Sundance 4-15A2 one-were by added 9-30-91. fer							
WELL 2 C	OMMENTS:										
	j.								ı		
WELL 3 C	OMMENTS:							<del></del>			
HELL 4 C	OMMENTS:		·		·····			· · · · · ·		· · · · · · · · · · · · · · · · · · ·	
				1							
WELL 5 C	OMMENTS:	<del>!</del>	<u>;                                    </u>					<u> </u>	•	,	·
L											<del></del>

ACTION CODES (See instructions on back of form)

A - Establish new entity for new well (single well only)

B - Add new well to existing entity (group or unit well)
C - Re-assign well from one existing entity to another existing entity

D - Re-assign well from one existing entity to a new entity E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

DIVISION OF OIL GAS & MINING



#### ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL SITE GEOLOGY - MUD LOGGING -

2450 INDUSTRIAL BLVD.

PHONE (303) 243 3044

GRAND JUNCTION, COLORADO 81505

Ron Schneider Pennzoil Company 700 Milam Houston, TX 77002



DIVISION OF OIL GAS & MINING

Dear Mr. Schneider:

Enclosed are the final logs on your 4-15A2 Sundance well, located in Section  $\Upsilon$ , T1S, R2W of Duchesne County, Utah.

We appreciated the opportunity to serve you. If we can be of any further assistance to you in the evaluation of zones encountered, please feel free to contact us.

We are looking forward to working with you again in the near future. Thank you again.

Respectfully,

Andy Kelley President

AWK:slm

DRY CUTS:

1 set shipped UPS to Pennzoil on 12/06/91, Attn: R. Schneider

1 set shipped UPS to Utah Oil, Gas & Mining on 12/06/91

ENC: 4 Final Logs

XCC:

1 Final Log - PENNZOIL CO.; D. Laman; Neola, UT

1 Final Log - UTAH OIL, GAS & MINING; Salt Lake City, UT

1 Final Log - EXXON JOINT INTEREST GROUP; L.E. Sailer; Midland, TX

3 Final Logs - ANR COASTAL OIL & GAS CORP.; J.R. Kennedy; Devner, CO

2 Final Logs - HAMILL ENERGY CO.; T. H. Brown; Houston, TX

1 Final Log - CONVEST ENERGY CORP.; D. Steven Tipton, Houston, TX

2 Final Logs - WHITING PET. CORP.; S. Artus; Denver, CO

1 Final Log - FORCENERGY CENTER; K. Fagan; Miami, FL



PENNZOIL COMPANY

4-15A2 SUNDANCE

SECTION 1, T1S, R2W

DUCHESNE COUNTY, UTAH

## 

2450 Industrial Blvd. Grand Junction, Colorado 81505 Phone (303) 243-3044

## ROCKY MOUNTAIN GEO-ENGINEERING CO. BIT RECORD - FT PER/DAY

WELL NAME:

4-15A2 SUNDANCE

**ELEVATION:** 

GL 5748', KB 5771'

COMPANY: CONTRACTOR: PENNZOIL CO
FORWEST RIG#5

SECTION: COUNTY & STATE: 1,T1S,R2W DUCHESNE,UTAH

SPUD DATE:

10/23/91

T.D. DATE:

12/5/91

				BIT	RECOR	)			1991 FT	PER/DA	Υ	1991 FT	PER/D/	Y
	RUN	SIZE	MAKE	TYPE	<b>國國/OUT</b>	FTG	HOURS	FT/HR	DATE	DEPTH	FT	DATE	DEPTH	FT
	_1	13 1/2	STC	DSJ	1226	1153	40.5	28.5	RU/LOG	6100	273	11/22	12971	18
	2	17	REED	HP51A	3498	2272	87.5	26.0	10/5	6373	194	11/23	12989	76
	3	9 7/8	REED	HP51AJ	6567	3069	93.5	32.8	10/6	6567	121	11/24	13065	83
	4		REED	HP61	6937	370	23.5	15.7	10/7	6688	249	11/25	13148	100
	5	17	HTC	ATJ55R	7726	789	57.5	13.7	10/8	6937	303	11/26	13248	102
	6	17	REED	нр63Ј	9126	1400	89.5	15.6	10/9	7240	319	11/27	13350	34
-	7	11	REED	HP63	9690	564	41.0	13.8	10/10	7559	196	11/28	13384	74
	8	**	REED	HPC3	10410	720	78.0	9.2	10/11	7755	379	11/29	13458	56
	9	77	REED	нр63л	10722	332	36.5	9.1	10/12	8134	384	11/30	13514	59
		6 1/4	STC	FTD	10739	17	3.0	5.7	10/13	8518	348_	12/1	13573	62
L	11		STC	F4A	11242	503	73.0	6.9	10/14	8866	260	12/2	13635	104
	12	71	STC	F4A	11484	242	49.0	4.9	10/15	9126	161	12/3	13739	109
	13	w	CHRIS	D331	11902	418	90.5	4.6	10/16	9287	348	12/4	13848	93
	14		STC	F4A	12294	392	84.5	4.6	10/17	9635	55	12/5	13941	69
	15		HTC	J44C	12362	68	16.0	4.3	10/18	9690	235	TD	14010 1	2/5/91
	16		CHRIS	D262	12610	248	63.0	3.9	10/19	9925	202	 		
٦	17		CHRIS	D331	12971	361	89.5	4.0	10/20	10127	214	ļ 		
	18	11	STC	D71H	12989	18	7.0	2.6	10/21	10341	91			
	19		STC	F4A	13380	391	98.0	4.0	10/22	10432	209			
	20	77	STC	F2	13484	104	34.0	3.1	10/23	10641	81			
$\perp$	21	- "	STC	PDCM21E		89	25.0	3.6	10/24	10722	0			
	22	**	CHRIS	D262	14010	437	101.0	4.3	10/25	10722	0	1		<u> </u>
					TD				10/26	10722	0	<b> </b>		
-									10/27	10722	14	ļ	ļ <u> </u>	
									10/28	10736	83	<u> </u>		
									10/29	10819	147	ļ		
1									10/30	10966	167	<b> </b>		
									10/31	11133	109	ļ		
									11/1	11242	93	<b> </b>	<u> </u>	
7									11/2	11335	75	ļ		
									11/3	11410	74		ļ <u>-</u>	
									11/4	11484	103	<u> </u>	<u> </u>	<u> </u>
7									11/5	11587	112	<b> </b>		
_									11/6	11699	112	<b> </b>	ļ	
						<u>.</u>			11/7	11811	87	<b> </b>		<b> </b>
									11/8	11897	32	<u> </u>	<del> </del>	
}									11/9	11929	100	<b></b>		
									11/10	12029	121	<b> </b>	ļ	
									11/11	12140	116	<u> </u>	-	
F									11/12	12256	72		-	
									11/13	12328	34	<del>  </del>	-	$\vdash$
									11/14	12362	80		-	
T									11/15	12442	98		<del> </del>	<del>   </del>
									11/16	12540	70	<del> </del>		
								<del></del>	11/17	12610	64			<del> </del> -
						<del>-</del>			11/18	12674	98	<b>\</b>	-	<del> </del>
1									11/19 11/20	12772 12859	87			
									11/21	12859	91 21	1	-	
							L		11/21	12930	21	<u> </u>		L

#### **DEVIATION SURVEY**

COMPANY NAME: PENNZOIL CO. COUNTY: DUCHESNE

WELL NAME: 4-15A2 SUNDANCE STATE: UTAH

			,					
DEPTH	DEV.	DIR.	DEPTH	DEV.	DIR.	DEPTH	DEV.	DIR.
6011'	1/4°							
6537'	3/4°							
6890'	1/2°							
79441	3/4°	·						
7700	3/4°							
82051	1/2°							
8700'	3/4°			Ī				
9126'	3/4°							
9610'	1°							
10116'	3/4°							
10389'	1°							
10701'	1 1/2°							
11230'	1 1/2°							
11484'	MR							
11880'	1°							
12302'	1 1/2°							
12610'	2 1/2°					-		
12989'	. 3°							
					_			

**DST NUMBER:** 

ONE

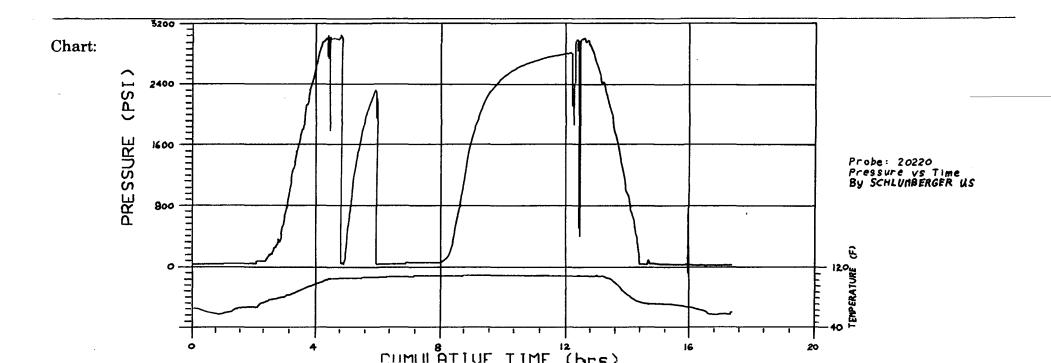
INTERVAL TESTED: 6520'-6567'

**BHT:** 118°

**PSI** 

TIME

Initial Hydrostatic:	3006	
Initial Flow:	40/40	
Initial Shut In:	2304	60 <b>MIN.</b>
Final Flow:	40/40	120 <b>MIN.</b>
Final Shut In:	2835	258 <b>MIN.</b>
Final Hydrostatic:	3006	
-	pressure 4 psig PIPE RECOVERY 88' MUD	



#### **SHOW REPORT**

10/5/91  CORMATION  Green River  EVERAGE DRILL RATE BEFORE SHOW		4-15A2 Sund	lance			SHOW REP	ORT #
				DEPTH OF SHOW IN	TERVAL 646	5-6469 <b>'</b>	
TENNAL DRILL RATE BEFORE SHOT		min /	44	AVERAGE DRILL RA			min / ft
VERAGE DRILL RATE AFTER SHOW		min /			•	1.0	(1111) / 16
		min /	π				
AMPLE DESCRIPTION (litt	hology, type and	degree of porosit	ty, eviden	ce of fracturing,	fluorescence,	cuts)	
80% SH: 10% ye1, 1							occ,
sl calc, w			01/				
20% SS: ltgy-clr,		mt. msrt. s	shang-s	shrd. sltv			
20% 001 108/ 0114	<u> </u>	,	, bang 6	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
		<u>-</u> -					
	·						
			·				
						-	
		, , , , , , , , , , , , , , , , , , ,					
	·	<del></del>	<del></del>		· · · · · · · · · · · · · · · · · · ·		<del></del>
AS INFORMATION							
EPTH (feet)	6464	6467	6470	)			
OTAL (units)	3	55	18				
	350	3300	1080	)			
01 (ppm)	1						!
		320	104				
C1 (ppm) C2 (ppm) C3 (ppm)		320 265	104 87				
C2 (ppm)			<del>-</del>				
C2 (ppm) C3 (ppm) C4 (ppm)	  	265	87				
C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm)	  	265 100	87 33				
C2 (ppm) C3 (ppm) C4 (ppm)		265 100 100	87 33				

#### **SHOW REPORT**

	<del></del>	4-15A2 Sunda					SHOW REPOR	** 2 
Green River				EPTH OF SHOW I	6	490-64	92'	
VERAGE DRILL RATE BEFORE SHOW	2	.5 min /	ft A	VERAGE DRILL RA	ATE DURING SHO	<sup>N</sup> 2		min / ft
VERAGE DRILL RATE AFTER SHOW	2	min /	ft					
SAMPLE DESCRIPTION (lith								
90% SH: 20% yel,	10% grn, 3	5% 1tgy 35%	brn; si	Et-slfrm,	blky-plt	y, oc	sl slt	у 
occ sl slt	y, occ sl	-mod calc						
	_							
					<del></del>			
	<del></del>				<u> </u>	<del></del>		
								_
GAS INFORMATION			•					
GAS INFORMATION DEPTH (feet)	6489	6491	6493					
	6489	6491 75	6493					
DEPTH (feet)			<del></del>					
DEPTH (feet)	8	75	20					
DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm)	8 600	75 5360	20 1400					
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	8 600 70	75 5360 243	20 1400 65					
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	8 600 70 tr	75 5360 243 332	20 1400 65 88					
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	8 600 70 tr	75 5360 243 332 80	20 1400 65 88 20					
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  IC4 (ppm)	8 600 70 tr	75 5360 243 332 80 90	20 1400 65 88 20					
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	8 600 70 tr	75 5360 243 332 80 90	20 1400 65 88 20					
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	8 600 70 tr tr	75 5360 243 332 80 90 67 9.38:1	20 1400 65 88 20 20		/stem)			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	8 600 70 tr tr tr	75 5360 243 332 80 90 67 9.38:1	20 1400 65 88 20 20		/stem)			
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	8 600 70 tr tr tr	75 5360 243 332 80 90 67 9.38:1	20 1400 65 88 20 20		/stem)			
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	8 600 70 tr tr tr	75 5360 243 332 80 90 67 9.38:1	20 1400 65 88 20 20		/stem)			
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  DTHER COMMENTS (e.g  Drilling with w	8 600 70 tr tr tr tr tr ater 8.4#	75 5360 243 332 80 90 67 9.38:1	20 1400 65 88 20 20		/stem)			
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	8 600 70 tr tr tr tr tr ater 8.4#	75 5360 243 332 80 90 67 9.38:1	20 1400 65 88 20 20		/stem)			

#### **SHOW REPORT**

DATE 10/5/01	WELL NAME				1		SHOW REPO	ORT# ~
10/5/91		4-15A2	Sundance	DEDT:: 07 01:01	M (1):TF::-			ORT # 3
Green River		·		DEPTH OF SHOW		0470-04	498 <b>'</b> —————	
VERAGE DRILL RATE BEFORE SHOV		1	min / ft	AVERAGE DRILL	RATE DU	RING SHOW	1.5	min / ft
AVERAGE DRILL RATE AFTER SHOW		1.5	min / ft					
90% SH: 20% yel, 3	10% grn, 3							slty
10% SS: ltgy-clr	<del></del>	nt wsrt	shano-s	hrd occ s	ltv. s	sl calc		
10% 55. Itgy CII	vigi ii pei		-, spang s			, <u> </u>		
					<del></del>			
	w		<del></del>					
		<del></del>				<del> </del>		
			<del></del>					
	6495	649	7 64	99				
DEPTH (feet)	6495	649		99				
DEPTH (feet) FOTAL (units)	<del></del>		1	0				
DEPTH (feet)  FOTAL (units)  C1 (ppm)	10	72	0 73	0				
GAS INFORMATION DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm)	10 700	72 526	1 0 73 0 30	0				
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	10 700 33	72 526 24 32	1 0 73 0 30	0				
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	10 700 33 44	72 526 24 32 8	1 0 73 0 30 8 40	0				
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	10 700 33 44 tr	72 526 24 32 8	10 73 0 30 8 40 0 tr	0				
DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm)	10 700 33 44 tr	72 526 24 32 8	10 73 0 30 8 40 0 tr	0				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	10 700 33 44 tr tr	72 526 24 32 8 9 6	10 73 0 30 8 40 0 tr 0 tr	0	system	)		
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	10 700 33 44 tr tr	72 526 24 32 8 9 6	10 73 0 30 8 40 0 tr 0 tr	0	system	)		
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	10 700 33 44 tr tr	72 526 24 32 8 9 6	10 73 0 30 8 40 0 tr 0 tr	0	system			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g  Drilling with wate	10 700 33 44 tr tr	72 526 24 32 8 9 6	10 73 0 30 8 40 0 tr 0 tr	0	system	)		
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	10 700 33 44 tr tr tr	72 526 24 32 8 9 6	10 73 0 30 8 40 0 tr 0 tr	0	system	)		

ORM 25 - 767 ( 1 )		S	HOW REF	PORT			
ATE 10/5/91	WELL NAME	4–15A2 Sur	ndance			SHOW REPORT	<del>*</del> 4
ORMATION Green Rive	r	<del></del>	DEF	PTH OF SHOW INTERV	6522-65	60 <b>'</b>	
VERAGE DRILL RATE BEFORE SHO	w 3.5	min		ERAGE DRILL RATE DU	RING SHOW	2	min / ft
VERAGE DRILL RATE AFTER SHOW	3.5	min					
	7						
SAMPLE DESCRIPTION (lit	hology, type and	degree of poros	ity, evidence	of fracturing, fluor	escence, cuts)		
6490-6570 is a L	acustrine	interval;	40-60% Б1	k and dark	brown shal	e, weak oil	Lcut
from brn shale.							
6500-40 10% ye1	, 10% red,	30% grn 10	0% 1tgy.	40% brn			•
		10% grn 30					<del></del>
		10% grn 10		<del></del>			
							,
	<del></del>						
				•			
		<del></del>					
						<del></del>	
SAS INFORMATION							
DEPTH (feet)	6520	6528	6538	6544	6552	6558	6560
TOTAL (units)	8	25	26	24	26	30	10
C1 (ppm)	550	1920	2000	1820	2020	2395	750
C2 (ppm)	25	75	80	80	80	110	60
C3 (ppm)	35	100	110	90	100	125	70
C4 (ppm)	tr	20	20	20	20	30	tr
NC4 (ppm)	tr	25	25	25	25	35	tr
NET INCREASE (units)		- 17	18	16	18	22	
RATIO (Pk:BG)	·	3.13:1	3.25:1	3:1	3.25:1	3.75:1	1
IATIO (TR. DG)			3,13	1 31-		30,301	
OTHER COMMENTS (e.g		spikey drill time	or gas, chang	es in mud system	<u> </u>		
Drillg with wat	er, 8.4#		·				
					<del></del>		
CORRELATION W / CONTRO	L WELL(S)						
Interval of sh	ow correla	tes to DST	#1 at 2-	·14A2 Cornab	y & struct	ure is flat	to
this well.							
		<del></del>					

6514

RECOMMENDED PACKER SEAT

DATE 10/7/91	WELL NAME				SHOW	REPORT # _
001447:01		4-15A2 Sund		OW INTERVAL		5
ORMATION Green Rive					5590-6594'	
	2.5	min / 1	it AVERAGE DRI	LL RATE DURING SH	2.5	min / ft
VERAGE DRILL RATE AFTER SHOW	2.5	min / 1	ft			
SAMPLE DESCRIPTION (lit				ring, fluorescend	e, cuts )	·
SH 10% yel 5%re	d 20% gn 60%	% 1tgy 5% d	kgy			
30% SS 1tgy vf-	fgr calc sb	ang-sbrd ws	rt cly fl tt	NFSOC		
				,		
						<del></del>
				· · · · · · · · · · · · · · · · · · ·		
GAS INFORMATION						
DEPTH (feet)	6590	6592	6595			
FOTAL (units)	7	16	6			
C1 (ppm)	644	1370	552			
	- 50	95	51			
	1 59					
C2 (ppm)	59 35	131	30			
C2 (ppm) C3 (ppm)	35	131	30 tr			
C2 (ppm) C3 (ppm) IC4 (ppm)	35 tr	131 79 64	tr			
C2 (ppm) C3 (ppm) IC4 (ppm) NC4 (ppm)	35	7:9 64				
C2 (ppm) C3 (ppm) IC4 (ppm)	35 tr	7-9	tr			

ORMATION Green Rive	WELL NAME	4-15A2 Sun	dance				SHOW REPO	<sup>ORT #</sup> 6
	<u></u> er			DEPTH OF SHOW	INTERVAL	6611	<b>-</b> 6615	
VERAGE DRILL RATE BEFORE SHOW	w 3	min	/ ft	AVERAGE DRILL	RATE DURI		2.5	min / ft
AVERAGE DRILL RATE AFTER SHOW		min						
			710	<del></del>				
SAMPLE DESCRIPTION (litt	nology, type and	degree of poros	ity, eviden	ce of fracturin	g, fluore:	scence, cu	ts)	,
SH: 10% yel, 20%	% red, 25%	grn, 40% 1	.tgy, 5%	, brn				
TR ss ltgy vfgr	m-wcmt wsi	rt sl calc	tt arg	occ glac				
		· · · · · · · · · · · · · · · · · · ·		,-,	·····			
		*	· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·	
		V-M		,			· · · · · · · · · · · · · · · · · · ·	
		<del></del>	·					
				<del></del>				
							· · · · · · · · · · · · · · · · · · ·	
					·			
GAS INFORMATION								
	6610	6612	6618	3				
DEPTH (feet)	6610	6612	6618	3				
DEPTH (feet) TOTAL (units)	<del></del>			3				
DEPTH (feet) TOTAL (units) C1 (ppm)	3	21	8	3				
DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm)	3 242	21 1693	8 644	3				
DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm)	3 242 26	21 1693 102 137	8 644 39 35	3				
GAS INFORMATION  DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	3 242 26 13 tr	21 1693 102 137 38	8 644 39 35 tr	3				
DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm)	3 242 26 13	21 1693 102 137 38 52	8 644 39 35	3				
DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm)	3 242 26 13 tr	21 1693 102 137 38	8 644 39 35 tr	3				

RECOMMENDED PACKER SEAT

		SHOW R				
WELL NAME	4-15A2	Sundance			SHOW REPORT #	7
•			DEPTH OF SHOW INTE	6649	9-6683'	
	mi	in / ft	AVERAGE DRILL RATE	DURING SHOW 3		min / ft
5	•					
ology, type and	degree of por	osity, eviden	ce of fracturing, flu	orescence, cuts)		
10% red, 5	% grn, 5	0% ltgy,	10% brn	10% SS		
10% red, 2	0% grn,	30% 1tgy	, 10% brn	20% SS		
30% red, 1	.0% grn,	20% 1tgy	, 10% brn	20% SLTST	10% SS	
10% red, 2	0% grn,	40% 1tgy	,	10% SLTST	20% SS	
				20% \$LTST	10% SS	
20% red, 6	0% 1tgy			10% SS		
				I		
From Protes	chala @	6660				
	Share 6	0000				<del>-</del>
	17	1	~ ++			
nt wrd-sbro	wsrt st	carc ar	g			
	•					
			2			
	1		····			
6648	6650	6662	6666	6672	6684	
6	53	43	63	66	9	
492	3864	3220	4324	4692	640	
30	256	192	384	320	44	
26	380	266	456	418	56	
12	285	285	475	427	58	
14	130	195	196	130	18	
	47	37	7 57	60		
	8.8:1	7.1	1 10.5:	1 11:1		
- 1	10.0.1			1		·
torquing of bit, s	pikey drill tin	ne or gas, ch	anges in mud syste	om )		
er, 8.4#	·					
er, 8.4#						
er, 8.4#						
er, 8.4#						
	,					
	3.5 5 cology, type and cology, type and cology, type and cology red, cology re	3.5 m   6 m   6	3.5   min/ft   5   min/ft   5   min/ft   5   min/ft   10% red, 5% grn, 50% ltgy, 10% red, 20% grn, 30% ltgy 30% red, 10% grn, 20% ltgy 10% red, 60% ltgy 20% red, 60% ltgy 20% red, 60% ltgy   10% red, 60% ltgy   10% red, 60% ltgy   10% red, 60% ltgy   20% red, 60%	A-15A2   Sundance   DEPTH OF SHOW INTER   3.5	A-15A2   Sundance   DEPTH OF SHOW INTERVAL   6644	A-15A2   Sundance   DEPTH OF SHOW INTERVAL   6649-6683'     3.5

AVERAGE DRILL RATE BEFORE SHOW 3   min / ft	10/7/91 ORMATION Green River		-15A2 Sund		DEPTH OF SHOW IN	ITERVAL 670	6-6708'	8
Minife   M					AVERAGE DRILL RA			
SAMPLE DESCRIPTION (lithology, type and degree of porosity, evidence of fracturing, fluorescence, cuts)  SH: 25%yel, 20% grn, 30% ltgy, 25% dkgy, plty-blky sft-frm, sl-non calc  DEPTH (feet) 6704 6707 6710  DEPTH (feet) 1380 9020 2460  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 50 470 128  NC4 (ppm) 95  NET INCREASE (units) 7:33:1	AVERAGE DRILL RATE AFTER SHOW	. 3		ft			<u> </u>	min / ft
SH: 25%yel, 20% grn, 30% ltgy, 25% dkgy, plty-blky sft-frm, sl-non calc  BAS INFORMATION  DEPTH (feet) 6704 6707 6710  OTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 50 470 128  C4 (ppm) 95  NC4 (ppm) 95  NC4 (ppm) 95  NC4 (ppm) 95  NC4 (ppm) 95  NC5 (units) 7:33:1		2.5	min / 1	ft				
SH: 25%yel, 20% grn, 30% ltgy, 25% dkgy, plty-blky sft-frm, sl-non calc  BAS INFORMATION  DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 50 470 128  CC4 (ppm) 95  NET INCREASE (units) 7:33:1	AMBI E DECODIDEION / WA							
SAS INFORMATION  DEPTH (feet) 6704 6707 6710  FOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 50 470 128  C6 (ppm) 50 470 128  C7 (ppm) 95  NC4 (ppm) 95  NCT INCREASE (units) 7:33:1								
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 95  NET INCREASE (units) 7:33:1	SH: 25%yel, 20% gr	n, 30% 1tg	y, 25% dkgy	, p1	ty-blky sf	t-frm, sl	-non calc	
TOTAL (units)  15  110  30  C1 (ppm)  1380  9020  2460  C2 (ppm)  100  480  131  C3 (ppm)  50  470  128  NC4 (ppm)  95					·			
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 50 470 128  NC4 (ppm) 95  NET INCREASE (units) 7:33:1		· · · · · · · · · · · · · · · · · · ·	··· ·· ·		<del></del>			
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 50 470 128  NC4 (ppm) 95  NET INCREASE (units) 7:33:1				· · · · · · · · · · · · · · · · · · ·				
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 95  NET INCREASE (units) 7:33:1			<del></del>					
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 95  NET INCREASE (units) 7:33:1						<b></b>		
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 95  NET INCREASE (units) 7:33:1	and the state of t					···.		
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 95  NET INCREASE (units) 7:33:1								
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 95  NET INCREASE (units) 7:33:1								
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 95  NET INCREASE (units) 7:33:1						· · · · · · · · · · · · · · · · · · ·		
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 95  NET INCREASE (units) 7:33:1			-		<del> </del>	····	<u> </u>	
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 95  NET INCREASE (units) 7:33:1			<u></u>					
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 95  NET INCREASE (units) 7:33:1	and the second s		,,					
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 50 470 128  NC4 (ppm) 95  NET INCREASE (units) 7:33:1								
DEPTH (feet) 6704 6707 6710  TOTAL (units) 15 110 30  C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 95  NET INCREASE (units) 7:33:1	GAS INFORMATION							
TOTAL (units)  15 110 30 C1 (ppm) 1380 9020 2460  C2 (ppm) 100 480 131  C3 (ppm) 50 470 128  C4 (ppm) 50 470 128  NC4 (ppm) 95 NET INCREASE (units) 7:33:1	DEPTH (feet)	6704	6707	6710	)			
1380 9020 2460  122 (ppm) 100 480 131  23 (ppm) 50 470 128  C4 (ppm) 50 470 128  NC4 (ppm) 95  NET INCREASE (units) 7:33:1		15	i10	30				
C2 (ppm)     100     480     131       C3 (ppm)     50     470     128       IC4 (ppm)     50     470     128       NC4 (ppm)     95       NET INCREASE (units)     7:33:1		1380	9020	2460	)			
C3 (ppm) 50 470 128		100	480	131				
C4 (ppm) 50 470 128  NC4 (ppm) 95  NET INCREASE (units) 7:33:1		<del></del>		+				
NC4 (ppm) 95 NET INCREASE (units) 7:33:1				<del></del>				
NET INCREASE (units) 7:33:1	····	-		120				
				-				
RATIO (Pk:BG)		<u> </u>	7:33:1					
	RATIO (Pk:BG)			<u></u>				
	OTHER COMMENTS (e.g	torquing of bit,	spikey drill time o	r gas, ch	anges in mud sy	stem)		<del></del>
OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)	Trace Oil Rainbows	s in mud,	Drilling wi	ith war	ter, 8.4#			
Trace Oil Rainbows in mud, Drilling with water, 8.4#								
						T		
Trace Oil Rainbows in mud, Drilling with water, 8.4#		L WELL(S)				·		
Trace Oil Rainbows in mud, Drilling with water, 8.4#	CORRELATION W / CONTRO							
Trace Oil Rainbows in mud, Drilling with water, 8.4#	CORRELATION W / CONTRO							

4-15A2 Sum min/f min/f ad degree of porosity grn, 30% 1tgy	t AVERAGE t		6745-6747 1	min / ft
min / f	t AVERAGE t	Cturing, fluore	2.5	min / ft
min / f	t r, evidence of fra	cturing, fluore	scence, cuts)	
min / f	t /, evidence of fra			ty occ calc
				ty occ calc
				ty occ calc
grn, 30% 1tgy	, plty-bl	ky sft-fr	n occ sl sl	ty occ calc
	***************************************		** · · · · · · · · · · · · · · · · · ·	
,		<u> </u>	· · · · · · · · · · · · · · · · · · ·	
	<del>, , , , , , , , , , , , , , , , , , , </del>			
6746	6750			
236	30			
236	30			
		<del></del>		
	00			
196		·		
5.9:1			: l	
		236     30       236     30       1007     102       897     121       745     70       500     60	236     30       236     30       1007     102       897     121       745     70       500     60	236     30       236     30       1007     102       897     121       745     70       500     60

10/7/91	WELL NAME	4 1530	·			SHOW REPO	RT #
Cross Dir	ver / Tg2	4-15A2		DEPTH OF SHOW INTERV	/AL 671	 59-6762 <b>'</b>	10
VERAGE DRILL RATE BEFORE SHO	)W			AVERAGE DRILL RATE DU	07.	4.5	
AVERAGE DRILL RATE AFTER SHOW	<u>4</u>	min			<del> </del>	4.0	min / ft
	5	min	/ ft	· · · · · · · · · · · · · · · · · · ·			
SAMPLE DESCRIPTION (lit	hology, type and	degree of poros	itv. eviden	ce of fracturing, fluo	rescence, cui	's )	
SH: 20% yel, 10%							·
SS: 10% ltgy-cli					-		
55. 200 2097 02-	- 1232 Pe.		<u> </u>		· · · · · · · · · · · · · · · · · · ·		
		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		·	
			·····		· · · · · · · · · · · · · · · · · · ·		
			· · · · · · · · · · · · · · · · · · ·	<u> </u>			
							······································
					<del> </del>		
				·			
GAS INFORMATION	<del></del>	<del></del>		<u> </u>			
	6758	6761	6764	<u> </u>			
DEPTH (feet)			<del>-  </del>			1	
DEPTH (feet) TOTAL (units)	30	75	20				
			20 1836	5			
TOTAL (units)	30	75		5			
TOTAL (units) C1 (ppm)	30	75 7430	1836	5			
TOTAL (units) C1 (ppm) C2 (ppm)	30 3038 102	75 7430 307	1836	5			
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm)	30 3038 102 121	75 7430 307 360	1836 102 121	5			
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm)	30 3038 102 121 70	75 7430 307 360 228	1836 102 121 100	5			

DATE 10/F/01	WELL NAME	···						SHOW REPORT #	
10//91	WELL NAME	4-15A2 St	ındance			<u> </u>		OHOW NE. OH	11
Green River				DEPTH OF SH		6880	-6882	2	
AVERAGE DRILL RATE BEFORE SHOW	4	min /	ft	AVERAGE DRI	LL RATE DU	HING SHOW	4	·	min / ft
AVERAGE DRILL RATE AFTER SHOW	4.5	min /	/ ft						
SAMPLE DESCRIPTION (lithe								7	
SH: 30% yel, 20%					tr brn	tr sl	ow ye	el cut, no	flor
SS: 10% ltgy vfgr	-sit pcmt	wsrt spand	g-sbrd	calc					
									•
	· · · · · · · · · · · · · · · · · · ·							·	
	· · · · · · · · · · · · · · · · · · ·					· · · · · · ·			
······································					· · · ·				
	***************************************	····				· · · · · · · · · · · · · · · · · · ·			
					· •		· · · · · · · · · · · · · · · · · · ·		
				<u> </u>					
				_					
GAS INFORMATION									
DEPTH (feet)	6880	6881	6884	1					
TOTAL (units)	20	60	23						
C1 (ppm)	1900	5300	2100	)					
C2 (ppm)	100	409	125						
C3 (ppm)	110	486	125						
IC4 (ppm)	45	150	65						
	50	155	70			-			
					·				
		1	<del>                                     </del>						
NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)		40							
OTHER COMMENTS (e.g to Drilling with wat					<del></del>				
CORRELATION W / CONTRO	LWELL(S)								
		<del>'</del>							
	·	-	·						
RECOMMENDED PACKER SE	EAT								

DEPTH (feet) 698  TOTAL (units) 65  C1 (ppm) 582  C2 (ppm) 310  C3 (ppm) 240  C4 (ppm) 90  NC4 (ppm) 115  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of	3 1 De and d 25% I	mindegree of poro	n/ft n/ft sity, eviden brn,	AVERAGE D	RILL RATE DI	698 JRING SHOW	2 <b>-</b> 6984	4 '	min / ft
Green River  ERAGE DRILL RATE BEFORE SHOW  ERAGE DRILL RATE AFTER SHOW  AMPLE DESCRIPTION (lithology, type)  SH: 25% yel, 15% ltgy,  slow yellow cut  SS: ltgy vfgr pcmt wsrt  DTAL (units)  65  (ppm)  2 (ppm)  310  2 (ppm)  34 (ppm)  C4 (ppm)  C4 (ppm)  C5 (ppm)  C6 (ppm)  C7 (ppm)  C7 (ppm)  C8 (ppm)  C9	1 De and d 25% I	mindegree of poro	sity, eviden	AVERAGE D	RILL RATE DI	698 JRING SHOW	3	4'	min / ft
AMPLE DESCRIPTION (lithology, type SH: 25% yel, 15% ltgy, slow yellow cut SS: ltgy vfgr pcmt wsrt SS: ltgpm) 582 (ppm) 582 (ppm) 310 (ppm) 240 (ppm) 90 (ppm) 115 (ppm	1 De and d 25% I	mindegree of poro	sity, eviden	ce of fract					min / ft
AMPLE DESCRIPTION (lithology, type) SH: 25% yel, 15% ltgy, slow yellow cut SS: ltgy vfgr pcmt wsrt  AS INFORMATION  EPTH (feet) 698 OTAL (units) 65 1 (ppm) 582 2 (ppm) 310 3 (ppm) 240 C4 (ppm) 90 C4 (ppm) 91 ET INCREASE (units) ATIO (Pk:BG)	<b>25%</b> I	mindegree of poro	sity, eviden		turing, fluo	rescence, (			
SH: 25% yel, 15% ltgy, slow yellow cut  SS: ltgy vfgr pcmt wsrt  AS INFORMATION  EPTH (feet) 698  OTAL (units) 65  1 (ppm) 582  2 (ppm) 310  240  240  C4 (ppm) 90  IC4 (ppm) 115  IET INCREASE (units)  IATIO (Pk:BG)	25% [	Dkgy, 35%	brn,		turing, fluo	rescence, c	euts)		
SH: 25% yel, 15% ltgy, slow yellow cut  SS: ltgy vfgr pcmt wsrt  SS: ltgy vfgr pcmt wsrt  CAS INFORMATION  DEPTH (feet) 698  COTAL (units) 65  CAI (ppm) 582  CAI (ppm) 310  CAI (ppm) 90  CAI (ppm) 90  CAI (ppm) 115  CAI (ppm) 115  CATIO (Pk:BG)	25% [	Dkgy, 35%	brn,		turing, fluo	rescence, (	cuts)		
slow yellow cut  SS: ltgy vfgr pcmt wsrt  AS INFORMATION  EPTH (feet) 698  OTAL (units) 65  1 (ppm) 582  2 (ppm) 310  3 (ppm) 240  C4 (ppm) 90  IC4 (ppm) 115  IET INCREASE (units)  ATIO (Pk:BG)				n					
SS: ltgy vfgr pcmt wsrt  AS INFORMATION  EPTH (feet) 698  OTAL (units) 65  1 (ppm) 582  2 (ppm) 310  3 (ppm) 240  C4 (ppm) 90  IC4 (ppm) 115  IET INCREASE (units)  IATIO (Pk:BG)	sbro	d slty tr	oil st	n					
AS INFORMATION  DEPTH (feet) 698  OTAL (units) 65  C1 (ppm) 310  C2 (ppm) 310  C4 (ppm) 90  IC4 (ppm) 115  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of	sbr	d slty tr	oil st	n					
C1 (ppm) 582 C2 (ppm) 310 C3 (ppm) 240 C4 (ppm) 90 NC4 (ppm) 115 NET INCREASE (units) RATIO (Pk:BG)									
DEPTH (feet) 698  TOTAL (units) 65  C1 (ppm) 582  C2 (ppm) 310  C3 (ppm) 240  C4 (ppm) 90  NC4 (ppm) 115  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of									
DEPTH (feet) 698  TOTAL (units) 65  C1 (ppm) 582  C2 (ppm) 310  C3 (ppm) 240  C4 (ppm) 90  NC4 (ppm) 115  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of									
DEPTH (feet) 698  TOTAL (units) 65  C1 (ppm) 582  C2 (ppm) 310  C3 (ppm) 240  C4 (ppm) 90  NC4 (ppm) 115  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of									
DEPTH (feet) 698  TOTAL (units) 65  C1 (ppm) 582  C2 (ppm) 310  C3 (ppm) 240  C4 (ppm) 90  NC4 (ppm) 115  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of									
DEPTH (feet) 698  TOTAL (units) 65  C1 (ppm) 582  C2 (ppm) 310  C3 (ppm) 240  C4 (ppm) 90  NC4 (ppm) 115  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of									
DEPTH (feet) 698  OTAL (units) 65  C1 (ppm) 582  C2 (ppm) 310  C3 (ppm) 240  C4 (ppm) 90  IC4 (ppm) 115  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of									
DEPTH (feet) 698  OTAL (units) 65  C1 (ppm) 582  C2 (ppm) 310  C3 (ppm) 240  C4 (ppm) 90  IC4 (ppm) 115  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of		A -							
### DEPTH (feet) 698  ### OTAL (units) 65  ### 10						· · · · · · · · · · · · · · · · · · ·			
DEPTH (feet) 698  OTAL (units) 65  C1 (ppm) 582  C2 (ppm) 310  C3 (ppm) 240  C4 (ppm) 90  IC4 (ppm) 115  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of		77.							
### DEPTH (feet) 698  ### OTAL (units) 65  ### 10									
DEPTH (feet) 698  TOTAL (units) 65  C1 (ppm) 582  C2 (ppm) 310  C3 (ppm) 240  C4 (ppm) 90  NC4 (ppm) 115  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of						<del></del>			
DEPTH (feet) 698  OTAL (units) 65  C1 (ppm) 582  C2 (ppm) 310  C3 (ppm) 240  C4 (ppm) 90  IC4 (ppm) 115  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of									
OTAL (units) 65 C1 (ppm) 582 C2 (ppm) 310 C3 (ppm) 240 C4 (ppm) 90 IC4 (ppm) 115 RATIO (Pk:BG) OTHER COMMENTS (e.g torquing of		6983	6986					· · · · · · · · · · · · · · · · · · ·	
582 (ppm) 582 (22 (ppm) 310 (33 (ppm) 240 (44 (ppm) 90 (44 (ppm) 115 (45 (ppm) 115 (45 (ppm) 15 (ppm) 115 (45 (ppm) 15 (ppm) 115 (45 (ppm) 15 (ppm)		120	40						
22 (ppm) 310 23 (ppm) 240 C4 (ppm) 90 NC4 (ppm) 115 NET INCREASE (units) RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of	.0	11200	3000						
240 C4 (ppm) 90 NC4 (ppm) 115 NET INCREASE (units) RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of		460	186			_			
C4 (ppm) 90  NC4 (ppm) 115  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of		<del></del>	-					<u></u>	
NC4 (ppm) 115 NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g torquing of		450	180						
NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g torquing of		160	70					<del></del>	
OTHER COMMENTS (e.g torquing o		200	90		<del></del>				
OTHER COMMENTS (e.g torquing o		55							
		1.85:1							
		· · · · · · · · · · · · · · · · · · ·				n)			
Drilling with water, 8.	4#	Trace	of bro	wn oil	in mud				
CORRELATION W/CONTROL WELL (		<del>-</del>							
	S)								
	s)					i			

DEPTH OF SHOW INTERVAL   7016-7020	ATE 10/8/91	WELL NAME	-15A2 Sun	dance	···			SHOW REPO	RT #
### AMPLE DESCRIPTION (Hithology, type and degree of porosity, evidence of fracturing, fluorescence, cuts)  #### AMPLE DESCRIPTION (Hithology, type and degree of porosity, evidence of fracturing, fluorescence, cuts)  #### Si: 15% yel, 10% grn, 15% ltgy, 20% dkgy, 40% brn  ### slow yellow cut  ### SS: 20% ltgy clr-ltgy vfgr-slt, pcmt, wsrt sbrd, sl calc  ### ASINFORMATION  ### EPTH (feet)  ### 7014	DMATION	<del></del>			EPTH OF SHOW II	NTERVAL	7016	-7020 <b>'</b>	
AMPLE DESCRIPTION (lithology, type and degree of porosity, evidence of fracturing, fluorescence, cuts)  SH: 15% yel, 10% grn, 15% ltgy, 20% dkgy, 40% brn slow yellow cut SS: 20% ltgy clr-ltgy vfgr-slt, pcmt, wsrt sbrd, sl calc  AS INFORMATION  EPTH (feet) 7014 7018 7022  DTAL (units) 44 216 50 1 (ppm) 3200 20700 4320 2 (ppm) 187 1300 190 3 (ppm) 182 828 180 4 (ppm) 70 338 75 2 (qpm) 70 230 70 2 (ppm) 70 230 70 3 (prince prince pri	ERAGE DRILL RATE BEFORE SHOW	3	min /	,,,,	VERAGE DRILL RA	ATE DURING S			min / ft
AMPLE DESCRIPTION (lithology, type and degree of porosity, evidence of fracturing, fluorescence, cuts)  SH: 15% yel, 10% grn, 15% ltgy, 20% dkgy, 40% brn slow yellow cut  SS: 20% ltgy clr-ltgy vfgr-slt, pcmt, wsrt sbrd, sl calc  ASINFORMATION  EPTH (feet) 7014 7018 7022  OTAL (units) 44 216 50  1 (ppm) 3200 20700 4320  2 (ppm) 187 1300 190  3 (ppm) 182 828 180  24 (ppm) 70 338 75  C4 (ppm) 70 230 70  ETINCREASE (units) 172	ERAGE DRILL RATE AFTER SHOW	<del></del>	·		·				
SH: 15% yel, 10% grn, 15% ltgy, 20% dkgy, 40% brn slow yellow cut  SS: 20% ltgy clr-ltgy vfgr-slt, pcmt, wsrt sbrd, sl calc  ASINFORMATION  EPTH (feet) 7014 7018 7022  OTAL (units) 44 216 50 1 (ppm) 3200 20700 4320 2 (ppm) 187 1300 190 3 (ppm) 182 828 180 24 (ppm) 70 338 75 C4 (ppm) 70 230 70  ETINCREASE (units) 172			min /	' Tt				<u></u>	
SIOW yellow cut  SS: 20% ltgy clr-ltgy vfgr-slt, pcmt, wsrt sbrd, sl calc  ASINFORMATION  EPTH (feet) 7014 7018 7022  DTAL (units) 44 216 50 1 (ppm) 3200 20700 4320 2 (ppm) 187 1300 190 3 (ppm) 182 828 180 24 (ppm) 70 338 75 C4 (ppm) 70 230 70  ETINCREASE (units) 172	AMPLE DESCRIPTION (lith	ology, type and	degree of porosi	ity, evidenc	e of fracturing	, fluoresce	nce, cuts )	)	
SS: 20% ltgy clr-ltgy vfgr-slt, pcmt, wsrt sbrd, sl calc  ASSINFORMATION  REPTH (feet) 7014 7018 7022  OTAL (units) 44 216 50  At (ppm) 3200 20700 4320  At (ppm) 187 1300 190  B3 (ppm) 182 828 180  C4 (ppm) 70 338 75  BC4 (ppm) 70 230 70  BET INCREASE (units) 172	SH: 15% yel, 10%	grn, 15%	ltgy, 20%	dkgy, 4	0% brn		·		
AAS INFORMATION  DEPTH (feet) 7014 7018 7022  OTAL (units) 44 216 50  C1 (ppm) 3200 20700 4320  C2 (ppm) 187 1300 190  C3 (ppm) 182 828 180  C4 (ppm) 70 338 75  C4 (ppm) 70 230 70  DET INCREASE (units) 172	slow yellow	cut							
ASS INFORMATION  DEPTH (feet) 7014 7018 7022  OTAL (units) 44 216 50  C1 (ppm) 3200 20700 4320  C2 (ppm) 187 1300 190  C3 (ppm) 182 828 180  C4 (ppm) 70 338 75  C4 (ppm) 70 230 70  NET INCREASE (units) 172	SS: 20% ltgy clr	-ltgy vfgr	-slt, pcmt	, wsrt	sbrd, sl	calc			
ASS INFORMATION  DEPTH (feet) 7014 7018 7022  DOTAL (units) 44 216 50  C1 (ppm) 3200 20700 4320  C2 (ppm) 187 1300 190  C3 (ppm) 182 828 180  C4 (ppm) 70 338 75  C4 (ppm) 70 230 70  DET INCREASE (units) 172									
ASS INFORMATION  DEPTH (feet) 7014 7018 7022  DOTAL (units) 44 216 50  C1 (ppm) 3200 20700 4320  C2 (ppm) 187 1300 190  C3 (ppm) 182 828 180  C4 (ppm) 70 338 75  C4 (ppm) 70 230 70  DET INCREASE (units) 172	7								
ASS INFORMATION  DEPTH (feet) 7014 7018 7022  DOTAL (units) 44 216 50  DOTAL (uppm) 3200 20700 4320  DOTAL (uppm) 187 1300 190  DOTAL (uppm) 182 828 180  DOTAL (uppm) 70 338 75  DOTAL (uppm) 70 230 70									
ASS INFORMATION  DEPTH (feet) 7014 7018 7022  DOTAL (units) 44 216 50  DOTAL (uppm) 3200 20700 4320  DOTAL (uppm) 187 1300 190  DOTAL (uppm) 182 828 180  DOTAL (uppm) 70 338 75  DOTAL (uppm) 70 230 70		<del></del>			,	<del> </del>			
ASS INFORMATION  DEPTH (feet) 7014 7018 7022  DOTAL (units) 44 216 50  C1 (ppm) 3200 20700 4320  C2 (ppm) 187 1300 190  C3 (ppm) 182 828 180  C4 (ppm) 70 338 75  C4 (ppm) 70 230 70  DET INCREASE (units) 172									
ASS INFORMATION  DEPTH (feet) 7014 7018 7022  DOTAL (units) 44 216 50  DOTAL (uppm) 3200 20700 4320  DOTAL (uppm) 187 1300 190  DOTAL (uppm) 182 828 180  DOTAL (uppm) 70 338 75  DOTAL (uppm) 70 230 70	<del> </del>						7.1/2		
DEPTH (feet)     7014     7018     7022       COTAL (units)     44     216     50       C1 (ppm)     3200     20700     4320       C2 (ppm)     187     1300     190       C3 (ppm)     182     828     180       C4 (ppm)     70     338     75       NC4 (ppm)     70     230     70       NET INCREASE (units)     172     172						ı'			
DEPTH (feet)     7014     7018     7022       OTAL (units)     44     216     50       C1 (ppm)     3200     20700     4320       C2 (ppm)     187     1300     190       C3 (ppm)     182     828     180       C4 (ppm)     70     338     75       IC4 (ppm)     70     230     70       IET INCREASE (units)     172     172		· · · · · · · · · · · · · · · · · · ·				<del>.</del>	<del></del>		
DEPTH (feet)     7014     7018     7022       COTAL (units)     44     216     50       C1 (ppm)     3200     20700     4320       C2 (ppm)     187     1300     190       C3 (ppm)     182     828     180       C4 (ppm)     70     338     75       NC4 (ppm)     70     230     70       NET INCREASE (units)     172     172				:	<del></del>	<del></del>	79	<del></del>	
DEPTH (feet)     7014     7018     7022       COTAL (units)     44     216     50       C1 (ppm)     3200     20700     4320       C2 (ppm)     187     1300     190       C3 (ppm)     182     828     180       C4 (ppm)     70     338     75       NC4 (ppm)     70     230     70       NET INCREASE (units)     172     172	7.4								
DEPTH (feet)     7014     7018     7022       COTAL (units)     44     216     50       C1 (ppm)     3200     20700     4320       C2 (ppm)     187     1300     190       C3 (ppm)     182     828     180       C4 (ppm)     70     338     75       NC4 (ppm)     70     230     70       NET INCREASE (units)     172     172					<u> </u>		*		
DEPTH (feet)     7014     7018     7022       COTAL (units)     44     216     50       C1 (ppm)     3200     20700     4320       C2 (ppm)     187     1300     190       C3 (ppm)     182     828     180       C4 (ppm)     70     338     75       NC4 (ppm)     70     230     70       NET INCREASE (units)     172     172	AS INFORMATION								
COTAL (units)     44     216     50       C1 (ppm)     3200     20700     4320       C2 (ppm)     187     1300     190       C3 (ppm)     182     828     180       C4 (ppm)     70     338     75       NC4 (ppm)     70     230     70       NET INCREASE (units)     172     172	7	7014	7018	702	2				
C1 (ppm)     3200     20700     4320       C2 (ppm)     187     1300     190       C3 (ppm)     182     828     180       C4 (ppm)     70     338     75       NC4 (ppm)     70     230     70       NET INCREASE (units)     172     172		44	216	+					
C2 (ppm)     187     1300     190       C3 (ppm)     182     828     180       C4 (ppm)     70     338     75       NC4 (ppm)     70     230     70       NET INCREASE (units)     172     172		3200	<del></del>				· · · · · · · · · · · · · · · · · · ·		
C3 (ppm)     182     828     180       C4 (ppm)     70     338     75       NC4 (ppm)     70     230     70       NET INCREASE (units)     172     172									
C4 (ppm) 70 338 75	(1. f.			-					
NC4 (ppm) 70 230 70			<del> </del>			<del></del>			
NET INCREASE (units) 172									
		1	<del></del>	'0			217002-52-4		
AATIO (PK:BG) 4.9:1			<del></del>		<u> </u>			<u> </u>	
	(ATIO (PK: BG)		4.9:1						
						,010,			
		-, -, -,	11400 1411	<b>211</b> 01	2 211 11144				
DTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  Drilling with water, 8.4# Trace-fair brn oil in mud			<del> </del>	···				<del></del>	
	CORRELATION W / CONTRO	L WELL(S)							
Drilling with water, 8.4# Trace-fair brn oil in mud		-					-		
Drilling with water, 8.4# Trace-fair brn oil in mud						***************************************			
Drilling with water, 8.4# Trace-fair brn oil in mud									
Drilling with water, 8.4# Trace-fair brn oil in mud									

FORMATION Green	D4						
VERAGE DRILL BATE REFORE SH	River		DEPT	H OF SHOW INTERV	AL 7058-70	074'	
TENNE SILE THE BEI GIEST	ow 5	min .		AGE DRILL RATE DU	RING SHOW	4	min / f
VERAGE DRILL RATE AFTER SHO	<b>w</b> 5	min			···-		
	<del></del>				<del></del>		·
SAMPLE DESCRIPTION (II	thology, type and	degree of poros	ity, evidence of	fracturing, fluo	rescence, cuts )		
SH: 15% yel	25% ltgy, 15	% dkgy, 45	% brn g	ood yel fl	or, fast y	el cut	
SS: ltgy-clr					•		
	_						
		<del></del>					
				·	<del></del>		
					***		
		<del></del>		<del></del>	<del></del>		<del></del>
			- M				
DEPTH (feet)	7058	7060	7064	7066	7068	7076	
DEPTH (feet)	55	150	7064	7066 220	7068 240	7076 160	
DEPTH (feet) TOTAL (units)		+	+				
DEPTH (feet) FOTAL (units) C1 (ppm)	55	150	190	220	240	160	
GAS INFORMATION DEPTH (feet) FOTAL (units) C1 (ppm) C2 (ppm)	55 4900	150 14700	190 17500	220 21700	240	160 15800	
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	55 4900 265	150 14700 649	190 17500 826	220 21700 944	240 23100 1030	160 15800 700	
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)	55 4900 265 207	150 14700 649 640	190 17500 826 820	220 21700 944 940	240 23100 1030 1025	160 15800 700 690	
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	55 4900 265 207 110	150 14700 649 640 404	190 17500 826 820 500	220 21700 944 940 510	240 23100 1030 1025 556	160 15800 700 690 336	

th depth of show in average driller, fit  The showing average driller, fit	7088 ATE DURING SHOW	5.5	16
AVERAGE DRILL RA	7088 ATE DURING SHOW	5.5	min / fi
ft  y, evidence of fracturing  orn, frm blky o  sbrd occ calc	j, fluorescence, cu		min / fi
y, evidence of fracturing orn, frm blky o		its)	
orn, frm blky o		its)	
7096			
300			
28032	1		
1416			
1380			
500			
1 1	<del></del>		
410			1
410			
	300 28032 1416 1380	300 28032 1416 1380	300 28032 1416 1380

DATE	WELL NAME						SI	OW REPORT	#
10/9/91 TORMATION		4-15A2		DEDT!! OF	SHOW INTERVAL				1.7.
Green River							3 <b>-</b> 7234 <b>'</b>	<del></del>	
AVERAGE DRILL RATE BEFORE SHOW	6	min	/ft	AVERAGE	DRILL RATE DURIN	G SHOW	6		min / ft
VERAGE DRILL RATE AFTER SHOW	5	min_	1 / ft						
CAMPI E DECODIDADA / HIN									
SAMPLE DESCRIPTION (little				e of frac	turing, fluores	cence, d	cuts)		
SH: yel, 10% gn 2 SH brn blky hd do		LU% akgy, .	30% brn				<del></del>	~	<u></u>
SS: 70% off wh o		r pcmt abn	lse atz	gr.	sbang-ang	wsrt.	vcalc	arg occ	mica
& pyr occ tr	<del></del>	. pome don	100 402	3~7	ozung ung		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	419 000	
- P/1 000 01		<del></del>				<del></del> -			
				<del></del>					
					·			<del></del>	
		<del></del>							
	<u> </u>						·		
		<del></del>			···			·	
						_			
GAS INFORMATION									
DEPTH (feet)	7232	7234	7236						
OTAL (units)	170	250	150						
C1 ( ppm )	16936	20732	14600	)					
C2 (ppm)	661	1015	684						
C3 (ppm)	731	1201	800						
C4 (ppm)	406	608	406						
NC4 (ppm)	474	475	301			<u>-</u>			
NET INCREASE (units)		80							<del>                                     </del>
RATIO (Pk:BG)	<del>-  </del>	1.47							
IATIO (TR. DG)		1			لـــــــــــــــــــــــــــــــــــــ				
OTHER COMMENTS (e.g	torquing of bit.	spikev drill time	or gas, cha	nces in	mud system )				
Drilling with wate						s ove	r shak	er. Sur	face
		<del></del>		DIOMI	. OII Dead	2 0 0 0	_ DITUR	or. Dur	
coverage 5% prier	, 10% durli	ny, of alt	<u>ετ.</u>						
CORRELATION W / CONTRO	L WELL(S)								
		<del></del>					· · · · · · · · · · · · · · · · · · ·	<del></del>	

10/10/91	WELL NAME	4-15A2 St	undance				SHOW REPOR	T# 18
Green Riv	er			DEPTH OF SHOW	INTERVAL	7544-75	48'	
AVERAGE DRILL RATE BEFORE SHO		min	/ ft	AVERAGE DRILL R	ATE DURING		3	min / ft
AVERAGE DRILL RATE AFTER SHOW		min						211817 11
		111111	1710			<del></del>		
SAMPLE DESCRIPTION (III	hology, type and	degree of poro:	sity, eviden	ce of fracturing	, fluoresc	ence, cuts)		
SH: 10% yel 90%	brn frm-hd,	blky cal	c-lmy n	o flor, fa	st yel	mlky cu	ıt	
					<del></del>			
			<del></del>		<del>. ,</del>			
			<del></del>					
			<del></del>		<del></del>		·	
	<del></del>		<del></del>			<del></del>		
GAS INFORMATION								
DEPTH (feet)	7544	7546	4550					
OTAL (units)	100	190	100	<u></u>				
	9800	17720	9830					
C1 (ppm)		<del> </del>						
C2 (ppm)	413	620	415					
C3 (ppm)	470	944	473					
C4 (ppm)	220	312	230					
104 ()	210	310	220				-	
NC4 (ppm)	l l				4		1	
NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)		90						

10/11/91  FORMATION  Green River  EVERAGE DRILL RATE BEFORE SHOW  EVERAGE DRILL RATE AFTER SHOW	(	_1530 CITNIE	ANCE		-		SHOW RI	EPORT #	 L9
VERAGE DRILL RATE BEFORE SHOW	4	-15A2 SUNE		DEPTH OF SHO	W INTERVAL	70141	70151		
VERAGE ORILL DATE AFTER SHOW	1	<del></del>		AVERAGE DRIL	L RATE DURI	7914'-7 IG SHOW			
ACHAGE DUILE IN IE AL IEU SUOM		4 min						3.5	min / ft
	<del></del>	4.5 min	/ ft		<u></u>				<u> </u>
SAMPLE DESCRIPTION ( lithe	ology, type and	degree of norm	situ avidan	e of fractur	na fluores	cence, cut	e )		
		***							·
SH 30% YELLOW 10%	KED 20% L	IGHT GRAY	20% DAR	K GRAY 4	ON BRO	WIN	· · · · · ·		
				<u> </u>					
10% SS: clr frst	<u>vfqr sb-wr</u>	d wcmt sl	calc fr	m arg tı	spty	dull or	ng flor-	flash	mky
pale_yel	low cut- r	es dark w	ith orng	flor		<del></del>			
		<del></del>							
			····			<del></del>	· · · · · · · · · · · · · · · · · · ·		
						<del></del>			· · · · · · · · · · · · · · · · · · ·
							····		
~ <del>~~</del>		· · · · · · · · · · · · · · · · · · ·				····			
					<del></del>	<del></del>			
						<del></del>	<del></del>		
AS INFORMATION									
DEPTH (feet)	7913'	7915'	7917	, 1					
OTAL (units)	80 _	180	60	)					
01 (ppm)	6,720	12,040	4,143	3					
C2 (ppm)	180	566	228		1				
C3 (ppm)	360	720	254						
C4 (ppm)	120	468	122						
	73	440	94						
NC4 (ppm)	+								
NC4 (ppm)	l .			1		l .			ľ
NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)		1.25/1	-20 .75/1						

Green Rive		4-15A2 St	JNDANCE	3				SHOW REPOR	ar # 20_
	r			DEPTH OF S	HOW INTER	RVAL 7942	2' -	7956'	
VERAGE DRILL RATE BEFORE SHOW	V	3 min	/ ft	AVERAGE D	RILL RATE	DURING SHOW		4	min /
VERAGE DRILL RATE AFTER SHOW		4 min		L		1,			
			711						
AMPLE DESCRIPTION (lith	ology, type and o	iegree of poros	ity, evider	nce of fract	uring, flu	orescence,	cuts)		
SH 10% YELLOW 10		<del></del>						% BROWN	
flash to mlky cu	t - dk res/	orng flor	<del></del>						
					<del></del> =		<del></del> _		
					<del></del>	1			
						<del> </del>			
			<del></del>		<del> </del>				
			<del></del> -			- · · · · · · · · · · · · · · · · · · ·			
								***************************************	
	_								
SAS INFORMATION		7	<b>.</b>			· •			
DEPTH (feet)	7941'	7951'	795	L•					
OTAL (units)	45	150	65						
C1 (ppm)	3107	11025	4778	3					
C2 (ppm)	171	525	228	3					
	140	465	20:	2					
ය (ppm)		<del>                                     </del>						<del>1</del>	
C3 (ppm)		264	79	9		1			
C4 (ppm)	91	264 105	79				<u>.</u>		
C4 (ppm) NC4 (ppm)		105	20	D					
C4 (ppm)	91			D			-		

VERAGE DRILL RATE BEFORE SHO	w	3 min / f		RAGE DRILL	RATE DURI	NG SHOW		3	.5	min / ft
VERAGE DRILL RATE AFTER SHOW	· · · · · · · · · · · · · · · · · · ·	3 min/f		····						marit
		3 min/1	<u> </u>			<del></del>				
AMPLE DESCRIPTION (lit	hology, type and c	degree of porosity	v. evidence d	f fracturin	a. fluore	scence, c	uts )			
SH 10% YELLOW 10%					_	BROWN		· · · · · · · · · · · · · · · · · · ·	*	
			Job Billi	· ·						
TR SS clr frstd v	of ar uncons	s sbrd w sri								
11. 00 021 11004	- gr uncom	, , , , , , , , , , , , , , , , , , , ,		<del></del>			<del>-</del>			
flash pale yel/ml	lky strma cu	ıt res dk oı	rng flor							
Trubii puro yez, in	orly bermy or	100 01		***					<u> </u>	
		<del></del>		<del></del> -						·
						<del></del>				
						7				
			<del>-</del>							
			721 ,							
			72							
SAS INFORMATION					1000					
	79701	7973'	7975'							
DEPTH (feet)	7970 <b>¹</b>	7973 <b>'</b> 265	7975 <b>'</b> 55							
DEPTH (feet)  OTAL (units)		<del>                                     </del>	<del></del>						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
DEPTH (feet)  FOTAL (units)  C1 (ppm)	70 5110	265 19345	55 4015							
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)	70 5110 280	265 19345 1060	55 4015 220							
GAS INFORMATION DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm)	70 5110 280 336	265 19345 1060 1272	55 4015 220 264							
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	70 5110 280 336 168	265 19345 1060 1272 636	55 4015 220 264 132							
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	70 5110 280 336	265 19345 1060 1272 636 486	55 4015 220 264 132 101							
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)	70 5110 280 336 168	265 19345 1060 1272 636	55 4015 220 264 132							

GREEN RIV	4-	15A2 SUNDAN	ICE		SHOW REPORT #	22
VERAGE DRILL RATE BEFORE SHOW			DEPTH OF	SHOW INTERVAL 8077'	- 8080	
	W	5 min/fi	AVERAGE	DRILL RATE DURING SHOW	5	min / ft
AVERAGE DRILL RATE AFTER SHOW		5 min / fr	<del></del>		<del></del>	
SAMPLE DESCRIPTION (litt	nology type and			turing fluorescence cut	e )	
SH 20% yel 10% rd			<del></del>	iaing, nacrosonico, ca		
Jii 200 YCI 100 Id	100 911 200	ital and pr	-11		····	
SH dkbrn v calc/lm	my grdg to	arg LS slty	ip occ sbw	ky immed strmg y	el/bl cut	
<u> </u>						
SS trnsl brn vf gr	ang-sbang	m-w srt fr	ip cmt gd (	occ slty		
		<del></del>				
	***					
GAS INFORMATION		<u> </u>			T	
DEPTH (feet)	8076	8078	8080			
	60	150	80			<u> </u>
TOTAL (units)		11025	5800			1
TOTAL (units) C1 (ppm)	4340	11025		1	i	<del> </del>
C1 (ppm)	4340 200	535	320			
	<del>- </del>		320 380			
C1 (ppm) C2 (ppm)	200	535				
C1 (ppm) C2 (ppm) C3 (ppm)	200	535 460	380			
C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm)	200 240 160	535 460 260	380 190			

OATE 10/12/91  CORMATION GREEN RIVE  AVERAGE DRILL RATE BEFORE SHOW	WELL NAME						: SHOW REPORT	#
GREEN RIVE		-15A2 SUNDA		EPTH OF SHOW IN	TERVAL			23
					81	12' -	8116'	
	··	3½ min / f		VERAGE DRILL RAT	TE DURING SH	ow	3	min / ft
VERAGE DRILL RATE AFTER SHOW		3½ min/1	ft					
SAMPLE DESCRIPTION (lith				e of fracturing,	fluorescen	ce, cuts)		
SH brn-dkbrn sbl	blky-sbplty	frm-v hd/h	orit oc	c grdg to	arg LS	v cal	c slty ip	
occ dul yel	flor w/imme	d flash bl/	/yel cu	t				
TRACE SS clr tr	nsl vf gr a	ng m srt p	cmt fr	i				
		<del></del>						
	<del></del>	<del></del>		<del> </del>				
		<del></del>						
			<del></del>					
	-		<del></del>					
GAS INFORMATION								
AS INFORMATION	8112'	01161	1				-,	
SEPTIL (foot)			1 0110	. <b>.</b>	İ			1
DEPTH (feet)	<del></del>	8116'	8118					
FOTAL (units)	90	170	80					
FOTAL (units) C1 (ppm)	90 6720	170 11550	6300	)				
FOTAL (units) C1 (ppm)	90 6720 300	170 11550 625	6300					
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	90 6720 300 240	170 11550 625 510	300 240					
COTAL (units) C1 (ppm) C2 (ppm) C3 (ppm)	90 6720 300	170 11550 625	6300					
COTAL (units) C1 (ppm) C2 (ppm)	90 6720 300 240	170 11550 625 510	300 240					
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	90 6720 300 240 160	170 11550 625 510 288	80 6300 300 240 160					

FORMATION  GREEN RI  AVERAGE DRILL RATE BEFORE SHO		-15A2 SUNDA	ANCE								RT#	24
VERAGE DRILL BATE BEECHE CHO	VER		DI	PTH OF SH	IOW INTE	RVAL		3239'	_ :	8944		
TELESCONICE HATE BEFORE SHO	W	<b>4</b> min / f		ERAGE DR	ILL RATE	DURIN	G SHOW				3.5	min / ft
VERAGE DRILL RATE AFTER SHOW	i	4 min / f	ft		<del></del>	·						
								·				<u> </u>
SAMPLE DESCRIPTION (III	hology, type and c	legree of porosity	y, evidence	of fractu	ring, fic	lores	cence,	cuts)				
SH 20% yel 10% l	Ltgy 70% brn											
			7									
30% SS clr frstd	i occ mlky v	f gr uncons	s sbang	w srt	occ	sl	cons	frm	lmy	т-р	cmt	
mod gd Ø						•		,		·		
			<del></del>	·								
	-											,
						ı						
						1	_					
			· · · · · · · · · · · · · · · · · · ·									
•	<del>-</del>											
GAS INFORMATION												
	8238"	8240'	8245			-			<u> </u>			
GAS INFORMATION DEPTH (feet) TOTAL (units)	8238 <b>'</b> 40	8240' 110	8245	60								
DEPTH (feet)  FOTAL (units)		<del> </del>										
DEPTH (feet) TOTAL (units) C1 (ppm)	40	110 8470	5	60								
DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm)	40 3406	110	5	60 110								
DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm)	40 3406 173	110 8470 477	5	60 110 260								
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	40 3406 173 176	110 8470 477 484	5	60 110 260 264								
DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm)	40 3406 173 176 64	110 8470 477 484 176	5	60 110 260 264 96								

10/12/91	DATE	luci siaco					CHO!!! DESCRIP	
SKREM RIVER   S264" - 8282		WELL NAME	-15A2 SUND				SHOW REPORT #	25
3.5 min/ft	GREEN RIV					8264' -	8282	
SAMPLE DESCRIPTION (lithology, type and degree of porosity, evidence of fracturing, fluorescence, cute)  SH 10% gn 10% ltgy 80% brn  30% SS clr frestd vf gr uncone sbang—ang w ert occ m gr—w rdd  FLASH BRI MLKY YELBL COT/STRM RES DK ORNG FLOR  GAS INFORMATION  DEPTH (feet) 8262 8268 8280 8284   TOTAL (units) 60 140 100 50   C1 (ppm) 4200 9800 7000 3500   C2 (ppm) 252 588 460 210   C3 (ppm) 307 717 518 256   C4 (ppm) 112 261 187 93   C4 (ppm) 87 205 147 73   NET INCREASE (units) 80 40 -10   RATIO (Pk:BG) 7/3 5/3 1/.8   OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE	AVERAGE DRILL RATE BEFORE SHOW	N	3.5 min /	ft	AVERAGE DRILL RATE D	URING SHOW	3.5	min / ft
SH 10% gn 10% ltgy 80% brn  30% SS clr frstd vf gr uncons sbang-ang w srt occ m gr-w rdd  FLASH BRI MLKY YELBL CUT/STRM RES DK ORNG FLOR  GAS INFORMATION  DEPTH (feet) 8262 8268 8280 8284	AVERAGE DRILL RATE AFTER SHOW		3.5 min/	ft		1		
30% SS clr frstd vf gr uncons sbang-ang w srt occ m gr-w rdd  FLASH BRI MLKY YELBL CUT/STRM RES DK ORNG FLOR  GASINFORMATION  DEFTH (feet) 8262 8268 8280 8284				-				
30% SS clr frstd vf gr uncons sbang-ang w srt occ m gr-w rdd  FLASH BRI MLKY YELBL CUT/STRM RES DK ORNG FLOR  GAS INFORMATION  DEFTH (feet) 8262 8268 8280 8284 7074L (units) 60 140 100 50 7074L (units) 60 140 100 150 7074L (units) 60 140 140 150 7074L (units) 60 140 140 140 140 140 140 140 140 140 14	SAMPLE DESCRIPTION (lith	ology, type and d	legree of porosit	ty, evidenc	ce of fracturing, flu	prescence, cuts	)	
### PLASH BRI MLKY YELBL CUT/STRM RES DK ORNG FLOR    GAS INFORMATION	SH 10% gn 10% lt	gy 80% brn						
### PLASH BRI MLKY YELBL CUT/STRM RES DK ORNG FLOR    GAS INFORMATION						······		
GAS INFORMATION  DEPTH (feet) 8262 8268 8280 8284  TOTAL (units) 60 140 100 50  C1 (ppm) 4200 9800 7000 3500  C2 (ppm) 2552 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE	30% SS clr frstd	vf gr unco	ns sbang-a	ng ws	rt occ m gr-	w rdd		
GAS INFORMATION  DEPTH (feet) 8262 8268 8280 8284  TOTAL (units) 60 140 100 50  C1 (ppm) 4200 9800 7000 3500  C2 (ppm) 2552 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE								
DEPTH (feet) 8262 8268 8280 8284  TOTAL (units) 60 140 100 50  C1 (ppm) 4200 9800 7000 3500  C2 (ppm) 252 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE	FLASH BRI MLKY Y	ELBL CUT/ST	RM RES DK	ORNG F	LOR			
DEPTH (feet) 8262 8268 8280 8284  TOTAL (units) 60 140 100 50  C1 (ppm) 4200 9800 7000 3500  C2 (ppm) 252 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE								
DEPTH (feet) 8262 8268 8280 8284  TOTAL (units) 60 140 100 50  C1 (ppm) 4200 9800 7000 3500  C2 (ppm) 252 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE								
DEPTH (feet) 8262 8268 8280 8284  TOTAL (units) 60 140 100 50  C1 (ppm) 4200 9800 7000 3500  C2 (ppm) 252 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE								
DEPTH (feet) 8262 8268 8280 8284  TOTAL (units) 60 140 100 50  C1 (ppm) 4200 9800 7000 3500  C2 (ppm) 252 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE	<del></del>							
DEPTH (feet) 8262 8268 8280 8284  TOTAL (units) 60 140 100 50  C1 (ppm) 4200 9800 7000 3500  C2 (ppm) 252 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE								
DEPTH (feet) 8262 8268 8280 8284  TOTAL (units) 60 140 100 50  C1 (ppm) 4200 9800 7000 3500  C2 (ppm) 252 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE								
DEPTH (feet) 8262 8268 8280 8284  TOTAL (units) 60 140 100 50  C1 (ppm) 4200 9800 7000 3500  C2 (ppm) 252 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE		<del></del>				<del></del>		
DEPTH (feet) 8262 8268 8280 8284  TOTAL (units) 60 140 100 50  C1 (ppm) 4200 9800 7000 3500  C2 (ppm) 252 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE			<del></del>			····		
DEPTH (feet) 8262 8268 8280 8284  TOTAL (units) 60 140 100 50  C1 (ppm) 4200 9800 7000 3500  C2 (ppm) 252 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE								
TOTAL (units) 60 140 100 50	GAS INFORMATION							
C1 (ppm) 4200 9800 7000 3500  C2 (ppm) 252 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk: BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE  CORRELATION W/CONTROL WELL(S)	DEPTH (feet)	8262	8268	828	0 8284			
C2 (ppm) 252 588 460 210  C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk: BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE  CORRELATION W/CONTROL WELL(S)	TOTAL (units)	60	140	10	50			
C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE  CORRELATION W/CONTROL WELL(S)	C1 (ppm)	4200	9800	700	0 3500			
C3 (ppm) 307 717 518 256  IC4 (ppm) 112 261 187 93  NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk: BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE  CORRELATION W/CONTROL WELL(S)	C2 (ppm)	252	588	46	0 210			
IC4 (ppm)		307				'		
NC4 (ppm) 87 205 147 73  NET INCREASE (units) 80 40 -10  RATIO (Pk:BG) 7/3 5/3 1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE  CORRELATION W/CONTROL WELL(S)		<u> </u>		<del> </del>				
NET INCREASE (units)  RATIO (Pk: BG)  7/3  5/3  1/.8  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE  CORRELATION W/CONTROL WELL(S)				†				
OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE  CORRELATION W/CONTROL WELL(S)								
OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE  CORRELATION W/CONTROL WELL(S)				<del></del>				
DRILLING WITH FRESH WATER 8.4 SL INCR OIL OVER SHAKER 20% SURFACE COVERAGE  CORRELATION W/CONTROL WELL(S)		<u> </u>	1,73		17.0		1	
CORRELATION W / CONTROL WELL (S)	OTHER COMMENTS (e.g	torquing of bit, s	pikey drill time o	or gas, cha	inges in mud syste	m)		
CORRELATION W / CONTROL WELL (S)	DRILLING WITH FR	RESH WATER 8	3.4 SL INC	CR OIL	OVER SHAKER	20% SURFAC	E COVERAGE	
			<del></del>	<u></u>				
RECOMMENDED PACKER SEAT	CORRELATION W/CONTRO	L WELL (S)						
RECOMMENDED PACKER SEAT								
RECOMMENDED PACKER SEAT								
RECOMMENDED PACKER SEAT								
	RECOMMENDED PACKER S	EAT				ı		

ORMATION		4-15A2 SU				SHOW REPORT	<u></u>
GREEN RIVE	R		DE	PTH OF SHOW INTERVAL	8293' -	8312'	
VERAGE DRILL RATE BEFORE SHOW		4 min /		ERAGE DRILL RATE DURII			3 min/ft
VERAGE DRILL RATE AFTER SHOW		4 min /	ft	ı			
				1		<u> </u>	
AMPLE DESCRIPTION (lith	ology, type and o	legree of porosit	ty, evidence	of fracturing, fluores	cence, cuts		
SH 10% yel 10% gn	10% dkgy 7	0% brn					
SS 40% clr frstd	vf gr occ m	gr pred s	bang w	rdd m srt unco	ons		
FLASH PALE MLKY C	UT/STRM RE	S DK ORNG	FLOR				
		<del></del>			<u> </u>		
		<del></del>					
	,						<del> </del>
					<del></del>		· · · · · · · · · · · · · · · · · · ·
		······································					
	<del></del>						
SAS INFORMATION		<del></del>	<del></del>		<u> </u>	<del></del>	<del></del>
AO IN CIMATION			0212		<b>\</b>	}	}
	8292'	8302'	8312	•			
DEPTH (feet)	8292 <b>'</b> 55	150	70				
DEPTH (feet)  OTAL (units)		<u> </u>					
DEPTH (feet)  TOTAL (units)  C1 (ppm)	55	150	70				
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)	55 3850	150 10957	70 5113				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	55 3850 231	150 10957 522	70 5113 243			-	
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	55 3850 231 281	150 10957 522 470	70 5113 243 219			-	
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	55 3850 231 281 101	150 10957 522 470 209 330	70 5113 243 219 97 154			-	
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	55 3850 231 281 101	150 10957 522 470 209	70 5113 243 219 97				
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	55 3850 231 281 101	150 10957 522 470 209 330	70 5113 243 219 97 154			-	
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)	55 3850 231 281 101 82	150 10957 522 470 209 330 95 2.7/1	70 5113 243 219 97 154 15				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	55 3850 231 281 101 82 torquing of bit, s	150 10957 522 470 209 330 95 2.7/1	70 5113 243 219 97 154 15 1.3/1				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk: BG)  OTHER COMMENTS (e.g	55 3850 231 281 101 82 torquing of bit, s	150 10957 522 470 209 330 95 2.7/1	70 5113 243 219 97 154 15 1.3/1	ges in mud system )			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk: BG)  OTHER COMMENTS (e.g	55 3850 231 281 101 82 torquing of bit, s	150 10957 522 470 209 330 95 2.7/1	70 5113 243 219 97 154 15 1.3/1	ges in mud system)			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk: BG)  OTHER COMMENTS (e.g	55 3850 231 281 101 82 torquing of bit, s	150 10957 522 470 209 330 95 2.7/1	70 5113 243 219 97 154 15 1.3/1	ges in mud system)			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  DTHER COMMENTS (e.g  DRILLING WITH WAT	55 3850 231 281 101 82 torquing of bit, s	150 10957 522 470 209 330 95 2.7/1	70 5113 243 219 97 154 15 1.3/1	ges in mud system)			
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  HC4 (ppm)  HC5 (units)  HC6 (Pk:BG)  DTHER COMMENTS (e.g  DRILLING WITH WAT	55 3850 231 281 101 82 torquing of bit, s	150 10957 522 470 209 330 95 2.7/1	70 5113 243 219 97 154 15 1.3/1	ges in mud system)			

DATE 10/12/91	WELL NAME	-15A2 SUNDAN	ICE		,	SHOW REPORT	<b>*</b> 27
ORMATION GREEN RIV	1	13/12 50/10/11		F SHOW INTERVAL	8312' -	02201	261
VERAGE DRILL RATE BEFORE SHOW			AVERAG	E DRILL RATE DURIN			
VERAGE DRILL RATE AFTER SHOW		5 min / ft				3.	.5 min/ft
		4 min/ft					
SAMPLE DESCRIPTION (lith	ology, type and c	learee of porosity	evidence of fr	acturina fluores	cence cuts	1	
SH 20% yel 10% l			, 011201100 01 111	g,		<u>,                                      </u>	
DI 200 YET 100 1	tgy 700 DI			··· <u>-</u> ,			
10% SS clr frstd	l vf or shar	ng-ang w rđợ	i-shrd n c	mt uncone		<del></del>	
TOO DD GIT IIDCO	vi gi sba	ng ang w ruc	-sbru p c	me directis			·
	<del></del>	·····					
	·				···		
		<del></del>	· · · · · · · · · · · · · · · · · · ·				
						——————————————————————————————————————	
	<u> </u>						
			<del></del>				
	· · · · · · · · · · · · · · · · · · ·					······································	<u></u>
		· · · · · ·					
GAS INFORMATION							
DEPTH (feet)	8312'	8324'	8336'	8340'			
OTAL (units)	70	150	110	90		· ·	
C1 (ppm)	5113	11200	9069	7420			
C2 (ppm)	243	630	440	360			
C3 (ppm)	219	640	396	324			
IC4 (ppm)	97	416	154	130			
NC4 (ppm)	154	330	181	149			
NET INCREASE (units)		80	40	20			
RATIO (Pk:BG)		2.1/1	1.6/1	1.3/1			
				<u>,                                    </u>		<u> </u>	
OTHER COMMENTS (e.g	torquing of bit, s	pikey drill time or	gas, changes i	n mud system )			
DRILLING WITH WA	ATER 8.4 TR	OIL OVER SI	HAKER				
CORRELATION W / CONTRO	L WELL(S)						
			·	·			
							_
RECOMMENDED PACKERS	EAI						

TO/12/91  FORMATION  GREEN RIVER  AVERAGE DRILL RATE BEFORE SHOW  AVERAGE DRILL RATE AFTER SHOW  SAMPLE DESCRIPTION (lithology)  SH 10% yel 10% gn 8  SH dk brn sbblky-sb	gy, type and c	4-15A2 SUNI 4 min/ 4 min/	ft	DEPTH OF SHOW INT	8388	3* - 8394	28
GREEN RIVER  AVERAGE DRILL RATE BEFORE SHOW  AVERAGE DRILL RATE AFTER SHOW  SAMPLE DESCRIPTION (lithology)  SH 10% yel 10% gn 8	····	4 min /	ft		8388	3' - 8394	A mi- /4
SAMPLE DESCRIPTION (lithology SH 10% yel 10% gn 8	····	4 min /	ft	AVERAGE DRILL RATE	DURING SHOW		# mi= / 44
SAMPLE DESCRIPTION (lithology SH 10% yel 10% gn 8	····		ft				4 min / ft
SH 10% yel 10% gn 8	····						
SH dk brn sbblky-sb		legree of porosit	ty, evidenc	ce of fracturing, f	uorescence, c	uts)	
SH dk brn sbblky-sh							
	plty frm	-m hd/brit	slty i	ip occ sl t	rnsl loc o	grdg to	<u></u>
arg LS occ w/ yel f	flor imme	d flash/st	rmg ye	lbl cut			
						· · · · · · · · · · · · · · · · · · ·	·
TR SS trnsl brn vf-	-f gr ang	-sbang m si	rt thn	strgrs cal	c/arg cmt	occ unson	s
					1		
GAS INFORMATION							
DEPTH (feet)	8386	8392'	8396	6'	,		
TOTAL (units)	50	170	60	0			
C1 (ppm)	3360	11900	4130	0			
C2 (ppm)	200	700	300	0			
C3 (ppm)	180	840	300	0			
IC4 (ppm)	80	320	120	0	1		
NC4 (ppm)	55	300	110				
NET INCREASE (units)		120	+10			-	
RATIO (Pk:BG)		3.4/1					
natio (FR. Bd)		3.4/I	<u> </u>				
OTHER COMMENTS (e.g tore	quing of bit, s	pikey drill time c	or gas, cha	anges in mud sys	tem )		
DRILLING WITH WATER	R 8.4 TR	OIL BEADS	IN MUD				
					· · · · · · · · · · · · · · · · · · ·	***	
CORRELATION W/CONTROL W	VELL(S)						
					1		
				<del></del>	<del> </del>		
RECOMMENDED PACKER SEAT	T						

ORMATION	12/91	4-	-15A2 SUNDAI	NCE				SHOW F	REPORT #	29
	GREEN RIVER	<u>.                                    </u>			EPTH OF SHOW IN	TERVAL 84	124' -	8428		
	RATE BEFORE SHOW		4.5 min/ft	A	ERAGE DRILL RAT	TE DURING SI	HOW		3.5	min / ft
ERAGE DRILL	RATE AFTER SHOW		4.5 min/ft			<del></del>				11111/11
			mm/m							-
AMPLE DES	SCRIPTION (lithol	logy, type and d	legree of porosity	, evidence	of fracturing,	fluorescer	ice, cuts	)		
SH	30% yel 20%	rd 20% gn	30% brn							
SH	dk brn sl tr	nsl sbblk	y-sbplty v	hd-sl :	sft sbwxy	ip occ	brit-	grdg		
to	arg LS sl sl	lty ip occ	sdy strgrs	OCC W	immed yel	bl fla	sh cut			
								<del></del>		
							*******		······································	
TR	SS strgrs							·····		
						<del>,</del>				
								<u> </u>	<del></del>	
	<del></del>									
								····		
								<u> </u>		
			<del></del>							
		•				<del></del>	<del>, , , , , , , , , , , , , , , , , , , </del>	<del></del>		<del></del>
AS INFORM	MATION	T	<del></del>		<del></del>			<del></del>	·	Г
		8424'	8426'	8428		ľ				
EPTH (fee	t)	8424	0420	0420						
DEPTH (fee		8424	230	90	<del></del>					
OTAL (unit		1								
OTAL (unit		80	230	90						
OTAL (unit C1 (ppm) C2 (ppm)		80 6300	230 15400	90 6440						
OTAL (unit C1 (ppm) C2 (ppm) C3 (ppm)		80 6300 300	230 15400 900	90 6440 300		1				
	ts)	80 6300 300 740	230 15400 900 960	90 6440 300 240		1				
OTAL (unit 01 (ppm) 02 (ppm) 03 (ppm) 04 (ppm)	ts)	80 6300 300 740 80	230 15400 900 960 400	90 6440 300 240 160						

ORMATION		15A2 SUNDAN				SHOW REPORT #	30
GREEN RIVE				F SHOW INTERVAL	8510 <b>'</b> -	8530'	
VERAGE DRILL RATE BEFORE SHOW	V	4 min / ft	AVERAG	E DRILL RATE DURING	SHOW	3.5	min / ft
VERAGE DRILL RATE AFTER SHOW		3.5 min/ft	· · · · · · · · · · · · · · · · · · ·			·	
SAMPLE DESCRIPTION (lith			evidence of fr	acturing, fluoresc	cence, cuts)		
		· · · · · · · · · · · · · · · · · · ·					
SH dkbrn sbblky	-sbplty sl	sft-v hd/br	it grdg t	o arg LS v	calc poss	w/dk 0 stn	occ carl
lam immed strmg	yelbl cut	ip					· ·
	••••						
					· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
					<u> </u>		
					<del></del>		
					<del></del>		
,							
		<u></u>			<del></del>	:	
GAS INFORMATION		<del> </del>		<del></del>			
	8510'	8530'	8536 <b>'</b>				
DEPTH (feet)	<del></del>			<del></del>			
	100	270	100				
TOTAL (units)	100 7980	270 22400	100 7840				
DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm)	<del> </del>	<u> </u>		1			
TOTAL (units) C1 (ppm) C2 (ppm)	7980	22400	7840	1			
TOTAL (units) C1 (ppm)	7980 400	22400 900	7840 300	-			
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm)	7980 400 360	22400 900 960	7840 300 240				
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm) NC4 (ppm)	7980 400 360 160	22400 900 960 320	7840 300 240 160				
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm)	7980 400 360 160	22400 900 960 320	7840 300 240 160				
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm) NC4 (ppm) NET INCREASE (units)	7980 400 360 160	22400 900 960 320	7840 300 240 160				
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)	7980 400 360 160 110	22400 900 960 320 220	7840 300 240 160 110				
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)	7980 400 360 160 110	22400 900 960 320 220	7840 300 240 160 110	n mud system)	SURFACE		
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g	7980 400 360 160 110	22400 900 960 320 220	7840 300 240 160 110	n mud system)	SURFACE		
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g DRILLING WITH WATE	7980 400 360 160 110 torquing of bit, sp	22400 900 960 320 220	7840 300 240 160 110	n mud system)	SURFACE		
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g	7980 400 360 160 110 torquing of bit, sp	22400 900 960 320 220	7840 300 240 160 110	n mud system)	SURFACE		
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g DRILLING WITH WATE	7980 400 360 160 110 torquing of bit, sp	22400 900 960 320 220	7840 300 240 160 110	n mud system)	SURFACE		
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g DRILLING WITH WATE	7980 400 360 160 110 torquing of bit, sp	22400 900 960 320 220	7840 300 240 160 110	n mud system)	SURFACE		
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g DRILLING WITH WATE	7980 400 360 160 110 torquing of bit, sp	22400 900 960 320 220	7840 300 240 160 110	n mud system)	SURFACE		

RECOMMENDED PACKER SEAT

- 8558'	L min / ft
	L min / ft
l flor &	
}	1

GREEN RIV		4-15A2 SUN		<u> </u>			EPORT # 32
150405 DOWN SATE DEED OF SAME			:	OF SHOW INT	8560	' - 8578'	
VERAGE DRILL RATE BEFORE SHO	)W	<b>4</b> min / f		GE DRILL RAT	E DURING SHOW		<b>3</b> min / f
VERAGE DRILL RATE AFTER SHOW	<b>v</b>	3+ min / 1					
					1		· · · · · · · · · · · · · · · · · · ·
AMPLE DESCRIPTION ( lit	hology, type and d	legree of porosit	y, evidence of	racturing, f	luorescence.	cuts)	
SH 40% yel 20%	% rd 20% ltc	y 10% dkgy	10% brn				
				·			
TR SS clr wh t	trnsl vf gr	ang-sbang	uncons p	cmt cal	w srt	<del></del>	
BIACH VEIDI CO	nowe Cin id/r	NE DDM DEG	TN MOMAT	CDT			
FLASH YELBL ST	TRMG CUT W/L	JK BRN RES	IN TOTAL	SPL			
			·				<u>, , ,</u>
					-		
					1		
					<del></del>		
							<del> </del>
					1		
AS INFORMATION	i ·	1	ī				
	8559 <b>'</b>	8573'	8579'				
DEPTH (feet)	8559 <b>'</b>	8573 <b>'</b> 150	8579 <b>'</b> 65				
DEPTH (feet)		<u> </u>					
DEPTH (feet) OTAL (units) C1 (ppm)	60	150	65				
CAS INFORMATION  DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	60 4932	150 12329	65 5343		1		
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)	60 4932 184	150 12329 554	65 5343 240				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	60 4932 184 166	150 12329 554 578	65 5343 240 251				
DEPTH (feet)  OTAL (units)  O1 (ppm)  O2 (ppm)  O3 (ppm)  C4 (ppm)	60 4932 184 166 55	150 12329 554 578 332	65 5343 240 251 144		1		
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	60 4932 184 166 55	150 12329 554 578 332 241	65 5343 240 251 144 104		1		

RECOMMENDED PACKER SEAT

10/13/91	WELL NAME	4-15A2 SUNI	DANCE			SHOW REPO	ORT # 33
RMATION GREEN R			<del></del>	OF SHOW INTERVAL	8582	- 8595'	
VERAGE DRILL RATE BEFORE SHOW		3 min /		E DRILL RATE DURI			
VERAGE DRILL RATE AFTER SHOW					<del></del>		4 min / ft
	<del></del>	4.5 min/	ft	<del> </del>			
AMPLE DESCRIPTION ( lith	ology, type and d	tearee of porosit	v evidence of f	acturing fluores	scence cuts		
SH 50% yel 20%			y, evidence of a	20.011119, 112010			
DI 300 YE1 200	10 108 109	y 20% DIII					<u></u>
CC 109 alm we	f em and ab						
SS 10% clr vf-						pyr occ w	/vis brn
0 stn 10% sptty	y orng flor	w/flash s	trmg yelbl	cut & dk	brn res	····	
					<del></del>		
		<del></del>			<del></del>		
	·	_					
						*	
	<del> </del>						
AS INFORMATION							
	85801	8583 <b>'</b>	8596*				
DEPTH (feet)	8580° 65	8583 <b>'</b> 245	8596 <b>'</b> 65				
DEPTH (feet) OTAL (units)		<del>                                     </del>	65				
DEPTH (feet)  OTAL (units)  C1 (ppm)	65	245	65				
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)	65 5343	245 20137 904	65 5343 240				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	65 5343 240 251	245 20137 904 945	65 5343 240 251				
OEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	65 5343 240 251 144	245 20137 904 945 543	65 5343 240 251 144				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	65 5343 240 251	245 20137 904 945 543 394	65 5343 240 251 144 104				
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)	65 5343 240 251 144	245 20137 904 945 543 394 180	65 5343 240 251 144				
GAS INFORMATION DEPTH (feet) TOTAL (units)	65 5343	245 20137	65 5343				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	65 5343 240 251 144	245 20137 904 945 543 394	65 5343 240 251 144 104				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)	65 5343 240 251 144	245 20137 904 945 543 394 180	65 5343 240 251 144 104				
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)	65 5343 240 251 144	245 20137 904 945 543 394	65 5343 240 251 144 104				
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  AC4 (ppm)  HET INCREASE (units)  RATIO (Pk:BG)	65 5343 240 251 144 104	245 20137 904 945 543 394 180 3.8	65 5343 240 251 144 104				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)  IATIO (Pk:BG)  OTHER COMMENTS (e.g	65 5343 240 251 144 104	245 20137 904 945 543 394 180 3.8	65 5343 240 251 144 104				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  RC4 (ppm)  RET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	65 5343 240 251 144 104	245 20137 904 945 543 394 180 3.8	65 5343 240 251 144 104				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	65 5343 240 251 144 104	245 20137 904 945 543 394 180 3.8	65 5343 240 251 144 104				
DEPTH (feet)  OTAL (units)  O1 (ppm)  O2 (ppm)  O3 (ppm)  C4 (ppm)  NC4 (ppm)  NC5 (Pk:BG)  OTHER COMMENTS (e.g	65 5343 240 251 144 104	245 20137 904 945 543 394 180 3.8	65 5343 240 251 144 104				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  RC4 (ppm)  RET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	65 5343 240 251 144 104	245 20137 904 945 543 394 180 3.8	65 5343 240 251 144 104				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  GC4 (ppm)  GC4 (ppm)  GC4 (ppm)  GC7 (ppm)	65 5343 240 251 144 104	245 20137 904 945 543 394 180 3.8	65 5343 240 251 144 104				

GREEN RIVER EVERAGE DRILL RATE BEFORE SHOW EVERAGE DRILL RATE AFTER SHOW  SAMPLE DESCRIPTION (lithout SH 60% yel 10% of SS 40% clr wh vf	logy, type and o		ft ft ity, evidence	DEPTH OF SHOW			- 8604'	4	min /	ft
SAMPLE DESCRIPTION (lithors SH 60% yel 10% o	n 10% ltg	5 min /	ft ft ity, evidenc		IATE DURIN	G SHOW		4	min /	ft
SH 60% yel 10% o	n 10% ltg	degree of porosi	ity, evidenc	oo of fronturing						
SH 60% yel 10% o	n 10% ltg			on of fracturing						
SH 60% yel 10% o	n 10% ltg			a of fracturing						
SS 40% clr wh vf		y 10% dkgy	10% br	Je OI Hacturine	, fluores	cence, cuts	3)			
	-f gr and		· · · · · · · · · · · · · · · · · · ·	cn						
	-f or and				1					
FLASH MLKY YELBI		-sbang m-w	srt un	cons-fri	p cmt	calc f	r Ø occ	sptty	<u>yel</u>	flo
FLASH MLKY YELBI										
	STRMG CU	T IN TOTAL	SPL W/	DK BRN RI	ES/ORN	G FLOR				
				·						
								-		
							· · · · · · · · · · · · · · · · · · ·			
					, , , , , , , , , , , , , , , , , , ,					
		· · · · · · · · · · · · · · · · · · ·								
	<del></del>									
		· . <del></del>								
AS INFORMATION	orosi	05001		· ·			į	i		
DEPTH (feet)	8596 <b>'</b>	8602'	8605							
OTAL (units)	65	195	60							
71 (ppm)	5343	14000	4308	:						
22 (ppm)	240	543	179							
23 (ppm)	251	680	209							
C4 (ppm)	144	293	90	)		<del></del>				
IC4 (ppm)	104	266	82	2	į.					
IET INCREASE (units)		130	-5	5						
ATIO (Pk:BG)		3				· · ·	-			
THER COMMENTS (e.g to	rquing of bit. s	pikey drill time o	or gas, cha	nges in mud s	ystem)					
NO TORQUE MUD W	T 8.4									
CORRELATION W/CONTROL	WELL(S)									

Section Nation   Section Nation Nation   Section Nation   Section Nation Nation   Section Nation Nation   Section Nation Nation   Section Nation Nation Nation   Section Nation	10/13/91		4-15A2 SUN				SHOW REPORT # 35	<u> </u>
Second Column   19   10   10   10   10   10   10   10				į.		8608 -	8628'	
SAMPLE DESCRIPTION (lithology, type and degree of porosity, evidence of fracturing, fluorescence, cuts)  SH 50% yel 10% gn 10% ltgy 10% dkgy 20% brn  SS 10% clr trnsl wh vf-f gr occ m gr sbang-sbrd m-w srt uncons p cmt w/tr sptty dul orng flor & slo strmg yelbl cut dk brn res w/dul orng flor  BASINFORMATION  DEPTH (feet) 8606' 8611' 8616' 8619' 8623' 8629'  OTAL (units) 60 100 150 200 290 80  Cl (ppm) 4308 7179 10769 14359 20820 5749  Cl (ppm) 179 299 449 598 867 237  Cl (ppm) 209 349 523 692 1011 279  CH (ppm) 90 150 226 301 436 120  CHC4 (ppm) 82 137 205 274 397 109  HET INCREASE (units) 40 90 140 230 20		<i>'</i>	5.5 min /	ft AVER	AGE DRILL RATE DU	RING SHOW	3 <sub>min</sub>	n <i>i</i> ft
SH 50% yel 10% gn 10% ltgy 10% dkgy 20% brn  SS 10% clr trnsl wh vf-f gr occ m gr sbang-sbrd m-w srt uncons p cmt w/tr sptty dul orng flor & slo strmg yelbl cut dk brn res w/dul orng flor  SAS INFORMATION  DEPTH (feet) 8606' 8611' 8616' 8619' 8623' 8629'  OTAL (units) 60 100 150 200 290 80  Cl (ppm) 4308 7179 10769 14359 20820 5749  C2 (ppm) 179 299 449 598 867 237  C3 (ppm) 209 349 523 692 1011 279  C4 (ppm) 90 150 226 301 436 120  C4 (ppm) 90 150 226 301 436 120  C4 (ppm) 82 137 205 274 397 109  HET INCREASE (units) 40 90 140 230 20	VERAGE DRILL RATE AFTER SHOW		<b>4</b> min /	ft				
SS 10% clr trnsl wh vf-f gr occ m gr sbang-sbrd m-w srt uncons p cmt w/tr sptty dul orng flor & slo strmg yelbl cut dk brn res w/dul orng flor  AAS INFORMATION  EPTH (feet) 8606' 8611' 8616' 8619' 8623' 8629'  OTAL (units) 60 100 150 200 290 80  A1 (ppm) 4308 7179 10769 14359 20820 5749  12 (ppm) 179 299 449 598 867 237  23 (ppm) 209 349 523 692 1011 279  24 (ppm) 90 150 226 301 436 120  164 (ppm) 82 137 205 274 397 109  IET INCREASE (units) 40 90 140 230 20	AMPLE DESCRIPTION (lith	ology, type and d	legree of porosi	ty, evidence of	fracturing, fluor	escence, cuts )		
dul orng flor & slo strmg yelbl cut dk brn res w/dul orng flor  AAS INFORMATION  EPTH (feet) 8606' 8611' 8616' 8619' 8623' 8629'  OTAL (units) 60 100 150 200 290 80  A1 (ppm) 4308 7179 10769 14359 20820 5749  A2 (ppm) 179 299 449 598 867 237  A3 (ppm) 209 349 523 692 1011 279  A4 (ppm) 90 150 226 301 436 120  A4 (ppm) 82 137 205 274 397 109  ET INCREASE (units) 40 90 140 230 20	SH 50% yel 10%	gn 10% ltg	y 10% dkgy	20% brn				
SAS INFORMATION  DEPTH (feet) 8606' 8611' 8616' 8619' 8623' 8629'  OTAL (units) 60 100 150 200 290 80  C1 (ppm) 4308 7179 10769 14359 20820 5749  C2 (ppm) 179 299 449 598 867 237  C3 (ppm) 209 349 523 692 1011 279  C4 (ppm) 90 150 226 301 436 120  C4 (ppm) 82 137 205 274 397 109  SET INCREASE (units) 40 90 140 230 20	SS 10% clr trns	sl wh vf-f	gr occ m g	r sbang-s	brd m-w sr	t uncons p	cmt w/tr sptty	 7
DEPTH (feet)     8606*     8611*     8616*     8619*     8623*     8629*       FOTAL (units)     60     100     150     200     290     80       C1 (ppm)     4308     7179     10769     14359     20820     5749       C2 (ppm)     179     299     449     598     867     237       C3 (ppm)     209     349     523     692     1011     279       C4 (ppm)     90     150     226     301     436     120       NC4 (ppm)     82     137     205     274     397     109       NET INCREASE (units)     40     90     140     230     20	dul orng flor 8	slo strmg	yelbl cut	dk brn	res w/dul o	orng flor		
DEPTH (feet)     8606*     8611*     8616*     8619*     8623*     8629*       COTAL (units)     60     100     150     200     290     80       C1 (ppm)     4308     7179     10769     14359     20820     5749       C2 (ppm)     179     299     449     598     867     237       C3 (ppm)     209     349     523     692     1011     279       C4 (ppm)     90     150     226     301     436     120       RC4 (ppm)     82     137     205     274     397     109       RET INCREASE (units)     40     90     140     230     20				<del></del>				
DEPTH (feet)     8606*     8611*     8616*     8619*     8623*     8629*       COTAL (units)     60     100     150     200     290     80       C1 (ppm)     4308     7179     10769     14359     20820     5749       C2 (ppm)     179     299     449     598     867     237       C3 (ppm)     209     349     523     692     1011     279       C4 (ppm)     90     150     226     301     436     120       RC4 (ppm)     82     137     205     274     397     109       RET INCREASE (units)     40     90     140     230     20								
DEPTH (feet)     8606*     8611*     8616*     8619*     8623*     8629*       COTAL (units)     60     100     150     200     290     80       C1 (ppm)     4308     7179     10769     14359     20820     5749       C2 (ppm)     179     299     449     598     867     237       C3 (ppm)     209     349     523     692     1011     279       C4 (ppm)     90     150     226     301     436     120       RC4 (ppm)     82     137     205     274     397     109       RET INCREASE (units)     40     90     140     230     20					·			
DEPTH (feet)     8606*     8611*     8616*     8619*     8623*     8629*       COTAL (units)     60     100     150     200     290     80       C1 (ppm)     4308     7179     10769     14359     20820     5749       C2 (ppm)     179     299     449     598     867     237       C3 (ppm)     209     349     523     692     1011     279       C4 (ppm)     90     150     226     301     436     120       RC4 (ppm)     82     137     205     274     397     109       RET INCREASE (units)     40     90     140     230     20								
DEPTH (feet)     8606*     8611*     8616*     8619*     8623*     8629*       COTAL (units)     60     100     150     200     290     80       C1 (ppm)     4308     7179     10769     14359     20820     5749       C2 (ppm)     179     299     449     598     867     237       C3 (ppm)     209     349     523     692     1011     279       C4 (ppm)     90     150     226     301     436     120       RC4 (ppm)     82     137     205     274     397     109       RET INCREASE (units)     40     90     140     230     20								
DEPTH (feet)     8606*     8611*     8616*     8619*     8623*     8629*       COTAL (units)     60     100     150     200     290     80       C1 (ppm)     4308     7179     10769     14359     20820     5749       C2 (ppm)     179     299     449     598     867     237       C3 (ppm)     209     349     523     692     1011     279       C4 (ppm)     90     150     226     301     436     120       RC4 (ppm)     82     137     205     274     397     109       RET INCREASE (units)     40     90     140     230     20								
DEPTH (feet)     8606*     8611*     8616*     8619*     8623*     8629*       COTAL (units)     60     100     150     200     290     80       C1 (ppm)     4308     7179     10769     14359     20820     5749       C2 (ppm)     179     299     449     598     867     237       C3 (ppm)     209     349     523     692     1011     279       C4 (ppm)     90     150     226     301     436     120       RC4 (ppm)     82     137     205     274     397     109       RET INCREASE (units)     40     90     140     230     20								
DEPTH (feet)     8606*     8611*     8616*     8619*     8623*     8629*       COTAL (units)     60     100     150     200     290     80       C1 (ppm)     4308     7179     10769     14359     20820     5749       C2 (ppm)     179     299     449     598     867     237       C3 (ppm)     209     349     523     692     1011     279       C4 (ppm)     90     150     226     301     436     120       RC4 (ppm)     82     137     205     274     397     109       RET INCREASE (units)     40     90     140     230     20								
DEPTH (feet)     8606*     8611*     8616*     8619*     8623*     8629*       FOTAL (units)     60     100     150     200     290     80       C1 (ppm)     4308     7179     10769     14359     20820     5749       C2 (ppm)     179     299     449     598     867     237       C3 (ppm)     209     349     523     692     1011     279       C4 (ppm)     90     150     226     301     436     120       NC4 (ppm)     82     137     205     274     397     109       NET INCREASE (units)     40     90     140     230     20				<del></del>				
FOTAL (units)         60         100         150         200         290         80           C1 (ppm)         4308         7179         10769         14359         20820         5749           C2 (ppm)         179         299         449         598         867         237           C3 (ppm)         209         349         523         692         1011         279           C4 (ppm)         90         150         226         301         436         120           NC4 (ppm)         82         137         205         274         397         109           NET INCREASE (units)         40         90         140         230         20								
DEPTH (feet)     8606*     8611*     8616*     8619*     8623*     8629*       COTAL (units)     60     100     150     200     290     80       C1 (ppm)     4308     7179     10769     14359     20820     5749       C2 (ppm)     179     299     449     598     867     237       C3 (ppm)     209     349     523     692     1011     279       C4 (ppm)     90     150     226     301     436     120       NC4 (ppm)     82     137     205     274     397     109       NET INCREASE (units)     40     90     140     230     20	SAS INFORMATION							
FOTAL (units)         60         100         150         200         290         80           C1 (ppm)         4308         7179         10769         14359         20820         5749           C2 (ppm)         179         299         449         598         867         237           C3 (ppm)         209         349         523         692         1011         279           C4 (ppm)         90         150         226         301         436         120           NC4 (ppm)         82         137         205         274         397         109           NET INCREASE (units)         40         90         140         230         20		8606'	8611'	8616'	8619'	86231	86291	
C1 (ppm)       4308       7179       10769       14359       20820       5749         C2 (ppm)       179       299       449       598       867       237         C3 (ppm)       209       349       523       692       1011       279         C4 (ppm)       90       150       226       301       436       120         NC4 (ppm)       82       137       205       274       397       109         NET INCREASE (units)       40       90       140       230       20	OTAL (units)	i	1					
C2 (ppm)     179     299     449     598     867     237       C3 (ppm)     209     349     523     692     1011     279       C4 (ppm)     90     150     226     301     436     120       NC4 (ppm)     82     137     205     274     397     109       NET INCREASE (units)     40     90     140     230     20			1					
C3 (ppm)     209     349     523     692     1011     279       C4 (ppm)     90     150     226     301     436     120       NC4 (ppm)     82     137     205     274     397     109       NET INCREASE (units)     40     90     140     230     20		1			1			
C4 (ppm)         90         150         226         301         436         120           NC4 (ppm)         82         137         205         274         397         109           NET INCREASE (units)         40         90         140         230         20					1			
NC4 (ppm) 82 137 205 274 397 109 NET INCREASE (units) 40 90 140 230 20			-		**			
NET INCREASE (units) 40 90 140 230 20		:	!	†				
	NC4 (ppm)	02	1 .13/					
2.5		82	1	·	140	230	20	
	NET INCREASE (units)	82	40	90		† · · · · ·		
OTHER COMMENIS (e.g torquing of bit, spikey grill time or gas. changes in mug system)	NET INCREASE (units) RATIO (Pk:BG)		1.6	90	3.3	4.8		
	NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g t	orquing of bit, s	1.6	90	3.3	4.8		
NO TORQUE MUD WT 8.4	NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g t	orquing of bit, s	1.6	90	3.3	4.8		
OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  NO TORQUE MUD WT 8.4	NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g t	orquing of bit, s	1.6	90	3.3	4.8		
NO TORQUE MUD WT 8.4	NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g !  NO TORQUE MUD	orquing of bit, sp	1.6	90	3.3	4.8		
	NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g !  NO TORQUE MUD	orquing of bit, sp	1.6	90	3.3	4.8		

	RIVER			VER A CE TRUE TO		- 8836'	
VERAGE DRILL RATE BEFORE SHOW	Y	4 min		VERAGE DRILL RATE D	UNING SHOW	3.5	mi <b>n</b> / ft
VERAGE DRILL RATE AFTER SHOW		<b>4</b> min	/ ft				
AMPLE DESCRIPTION (lith	ology, type and o	degree of poro	sity, evidence	of fracturing, flu	orescence, cui	s)	
SH 30% yel 10% re	1 10% gn 20	% 1tgy 30	% brn		····		
40% LS 1t-dkbrn	trnsl crp-m	nicxln gra	n/suc ip	occ dolic	loc slty/s	srq frm-hd o	occ w/fr
				strmg yelbl			
		<del></del>					
			<del></del>				
					'		
	· <del>····································</del>	· · · · · · · · · · · · · · · · · · ·					
PAS INFORMATION	· · · · · · · · · · · · · · · · · · ·						, , , , , , , , , , , , , , , , , , , ,
	88301	88321	8838				ļ
DEPTH (feet)	8830*	88321	8838				
DEPTH (feet) OTAL (units)	. 60	210	80				
DEPTH (feet)  OTAL (units)  C1 (ppm)	60 4200	210 13430	80 4760				
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)	4200 240	210 13430 660	80 4760 270				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	60 4200 240 260	210 13430 660 845	80 4760 270 292				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	60 4200 240 260 80	210 13430 660 845 240	80 4760 270 292 80				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	60 4200 240 260	210 13430 660 845 240 330	80 4760 270 292 80 110				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	60 4200 240 260 80	210 13430 660 845 240 330 150	80 4760 270 292 80				
GAS INFORMATION DEPTH (feet) FOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NC4 (ppm) NC4 (ppm) NC7 (PK:BG)	60 4200 240 260 80	210 13430 660 845 240 330	80 4760 270 292 80 110				
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  HC4 (ppm)  HET INCREASE (units)	60 4200 240 260 80	210 13430 660 845 240 330 150	80 4760 270 292 80 110				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)	60 4200 240 260 80 55	210 13430 660 845 240 330 150 3.5	80 4760 270 292 80 110 +20		m)		
EPTH (feet)  OTAL (units)  1 (ppm)  2 (ppm)  3 (ppm)  C4 (ppm)  EC4 (ppm)  ET INCREASE (units)  ATIO (Pk:BG)	60 4200 240 260 80 55	210 13430 660 845 240 330 150 3.5	80 4760 270 292 80 110 +20	ges in mud syster	n)		
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	60 4200 240 260 80 55	210 13430 660 845 240 330 150 3.5	80 4760 270 292 80 110 +20	ges in mud syster	n)		
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	60 4200 240 260 80 55	210 13430 660 845 240 330 150 3.5	80 4760 270 292 80 110 +20	ges in mud syster	m)		
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IC4 (ppm)  IC4 (ppm)  ICHINCREASE (units)  ICATIO (Pk:BG)  OTHER COMMENTS (e.g  NO TORQUE MUD W	60 4200 240 260 80 55 torquing of bit. s	210 13430 660 845 240 330 150 3.5	80 4760 270 292 80 110 +20	ges in mud syster	m)		
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	60 4200 240 260 80 55 torquing of bit. s	210 13430 660 845 240 330 150 3.5	80 4760 270 292 80 110 +20	ges in mud syster	n)		

RECOMMENDED PACKER SEAT

24.75	Male and a second	·							
10/14/91	WELL NAME	4-15A2 SU	NDANCE				. SHOW F	REPORT #	37
GREEN RIVE	₹	_	-	EPTH OF SHOW IN	NTERVAL	8840'	- 8850		
AVERAGE DRILL RATE BEFORE SHOW	/	3.5 min	/ ft   <sup>*</sup>	VERAGE DRILL RA	TE DURING	SHOW		3.5	min / ft
VERAGE DRILL RATE AFTER SHOW		3.5 min							
SAMPLE DESCRIPTION (11th	ology, type and			e of fracturing.	fluoresc	ence, cuts	)		
SH 20% yel 10% 1				,					
500 TG +1 3+	31-1				-				
50% LS trnsl 1t-		el flor w/i					sity bi	ky-ang	m-v hd
DITE OCC	DIN SCH Ye	el lioi w/	Limed St	rmd Aerpr	-DTMII	Cut			· · · · · · · · · · · · · · · · · · ·
10% SS trnsl bri	a clr vf-f	gr ang-sba	ang m sr	t fri-unc	ons p	cmt ca	lc arg	ip dk	brn stn
		r w/yelbl s							
			<del></del>	· · · · · · · · · · · · · · · · · · ·				, , , , , , , , , , , , , , , , , , ,	
			···		· · · · · · · · · · · · · · · · · · ·				
								-	
GAS INFORMATION		<del></del>							
DEPTH (feet)	8840'	8846'	8850	)*		·		.	
FOTAL (units)	- 80	210	180	)	.				
C1 (ppm)	4760	19040	15300	) .					
C2 (ppm)	270	960	744						
23 (ppm)	292	780	780						
C4 (ppm)	80	240	160						
NC4 (ppm)	110	330	110						
NET INCREASE (units)		+130	+100	)					
RATIO (Pk:BG)									
					i				
OTHER COMMENTS (e.g	orquing of bit, s	spikey drill time	or gas, char	iges in mud sy:	stem )		· · · · · · · · · · · · · · · · · · ·		
NO TORQUE MUD	T 8.4 TR	ACE TO 10%	OIL SUI	EFACE COVE	RAGE	ON MUD		<del></del>	
	<del> </del>	<del></del>		·					
CORRELATION W/CONTROI	_WELL(S)	•							
								<del></del>	
				·					

RECOMMENDED PACKER SEAT

type and de	4.5 min 6 min	/ ft	AGE DRILL RATE DUI	8924		
	6 min	/ ft				3 min / f
		**************************************		<u> </u>		3 11111/1
	gree of poro					
	<b>3</b>	sity, evidence of	fracturing, fluor	escence, cuts )		
e irda	oca bro		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		<del></del>	
	OCC DIN					
	gala los	anda to o	TC			
/-wxy v	Caic 100	grag to a	irg is		· · · · · · · · · · · · · · · · · · ·	
				_		
						cmt
stn imm	med - slo	strmg yel	bl blwh cu	t & dk brn	res	
				·	<del></del>	
<del></del>						<u></u>
					· · · · · · · · · · · · · · · · · · ·	
924'	89541	89761	9024	9040'	9072'	
924 <b>'</b> 155	8954 <b>'</b> 660	8976¹ 745	9024 <b>¹</b> 2400	9040'	9072'	
155	660	745	2400	2320	640	
155 135	660 36960	745 41720	2400 98421	2320 97426	640 18912	
155 135 854	660 36960 3432	745 41720 2874	2400 98421 15158	2320 97426 9943	640 18912 2400	
155 135 854 911	660 36960 3432 3661	745 41720 2874 4132	2400 98421 15158 13000	2320 97426 9943 9874	640 18912 2400 3250	
155 135 854 911 270	660 36960 3432 3661 845	745 41720 2874 4132 913	2400 98421 15158 13000 3368	2320 97426 9943 9874 2762	640 18912 2400 3250 1000	
t	rnsl v	rnsl vf-f gr sk	rnsl vf-f gr sbang-w rdd		rnsl vf-f gr sbang-w rdd m-w srt fri-uncons o	-wxy v calc loc grdg to arg LS  rnsl vf-f gr sbang-w rdd m-w srt fri-uncons occ arg p stn immed - slo strmg yelbl blwh cut & dk brn res

AVERAGE DRILL RATE BEFORE SHO	w	5 min	/ ft AV	ERAGE DRILL RATE DURING	SHOW		<b>3</b> min / ft
VERAGE DRILL RATE AFTER SHOW	·	4 min				<del>-</del>	- marrie
		- 111111	7 11			<del></del>	<del> </del>
AMPLE DESCRIPTION ( little	hology, type and	degree of poros	itv. evidence	of fracturing, fluoresc	ence, cuts	)	
SH 20% yel 10%			-				
4				· · · · · · · · · · · · · · · · · · ·			
SS 30% clr mlky	vf-f or u	cons sband	r-ang m-r	o srt p cmt cal	c occ f	 ri	
			, ,	, 010 P 020 04			
TR mlky yelbl c	ut in total	spl					
			<u> </u>				
						<u> </u>	
					<u> </u>		
SAS INFORMATION						<del></del>	
EPTH (feet)	9370'	9386'	93961		_		
OTAL (units)	720	840	680				
OTAL (dints)	47967	55960	45302	<u> </u>			
-			2504				
C1 (ppm)	3795	4427	3584				
C1 (ppm) C2 (ppm)	3795 632	737	597				
C1 (ppm) C2 (ppm) C3 (ppm)			<del></del>				
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	632	737	597				
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	632	737 1873 120	597				
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NC4 (ppm)	632	737 1873	597				
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) HC4 (ppm) HC4 (ppm)	632	737 1873 120	597				
c1 (ppm) c2 (ppm) c3 (ppm) c4 (ppm) dC4 (ppm) dET INCREASE (units) dATIO (Pk:BG)	632 1605	737 1873 120 1.16	597 1516				
c1 (ppm) c2 (ppm) c3 (ppm) c4 (ppm) c4 (ppm) c5 (ppm) c6 (ppm) c6 (ppm) c6 (ppm) c7 (ppm) c8 (ppm) c9	632 1605 torquing of bit. s	737 1873 120 1.16	597 1516 or gas, chang	ges in mud system )			
c1 (ppm) c2 (ppm) c3 (ppm) c4 (ppm) dC4 (ppm) dET INCREASE (units) dATIO (Pk:BG)	632 1605 torquing of bit. s	737 1873 120 1.16	597 1516 or gas, chang	ges in mud system )			
c1 (ppm) c2 (ppm) c3 (ppm) c4 (ppm) dC4 (ppm) dET INCREASE (units) dATIO (Pk:BG)	632 1605 torquing of bit. s	737 1873 120 1.16	597 1516 or gas, chang	ges in mud system )			
1 (ppm) 2 (ppm) 3 (ppm) C4 (ppm) C4 (ppm) ET INCREASE (units) ATIO (Pk:BG) THER COMMENTS (e.g NO TORQUE MUD	632 1605 torquing of bit. s WT 8.4 209	737 1873 120 1.16	597 1516 or gas, chang	ges in mud system )			
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g	632 1605 torquing of bit. s WT 8.4 209	737 1873 120 1.16	597 1516 or gas, chang	ges in mud system )			

RECOMMENDED PACKER SEAT

ORMATION GREEN R			NDANCE	OF CHOIN INTERVAL			<del></del>	40
/CD + OF DOU + 0				OF SHOW INTERVAL		- 9424	1	
VERAGE DRILL RATE BEFORE SHOW	v 	4 min		GE DRILL RATE DURIN	SHOW		3.5	omin / ft
VERAGE DRILL RATE AFTER SHOW		6 min	/ ft					
AMPLE DESCRIPTION ( lith	ology, type and	degree of poros	ity, evidence of f	racturing, fluorese	ence, cut	s)		
SH 40% yel 20%	rd 10% gn	20% ltgy :	LO% brn					
							·	
SS 40% mlky cl	r ltgy vf-f	gr fri-w	ncons p cont	sbang-sbrd	p srt	clr fl	sl-m o	alc
tr mic	incl							
								_
					*			
				-				
	· · · · · · · · · · · · · · · · · · ·							
	<del></del>			· · · · · · · · · · · · · · · · · · ·	<del></del>			
AS INFORMATION								
	93981	9410'	9416'	9424'				
EPTH (feet)	9398¹ 700	9410'	9416 <b>'</b> 1760	9424 <b>'</b> 1460				
DEPTH (feet) OTAL (units)	1							
DEPTH (feet)  COTAL (units)  C1 (ppm)	700	1340	1760	1460				
GAS INFORMATION DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm)	700 45306	1340 85177	1760 111875	1460 92805				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	700 45306 3360	1340 85177 6336	1760 111875 8448	1460 92805 7008				
DEPTH (feet)  OTAL (units)  O1 (ppm)  O2 (ppm)  O3 (ppm)  C4 (ppm)	700 45306 3360 3400	1340 85177 6336 6057 1677	1760 111875 8448 7958 2204	1460 92805 7008 6602 1828				
DEPTH (feet)  OTAL (units)  O1 (ppm)  O2 (ppm)  O3 (ppm)  C4 (ppm)	700 45306 3360 3400 597	1340 85177 6336 6057 1677 2307	1760 111875 8448 7958 2204 3030	1460 92805 7008 6602				
DEPTH (feet)  OTAL (units)  O1 (ppm)  O2 (ppm)  O3 (ppm)  O4 (ppm)	700 45306 3360 3400 597	1340 85177 6336 6057 1677	1760 111875 8448 7958 2204	1460 92805 7008 6602 1828				

10/16/91	WELL NAME	4-15A2 SUNI	<u>ነ</u> ልክሮፑ				HOW REPO	JH! #	41
GREEN RIV	· · · · · · · · · · · · · · · · · · ·	4 15712 DOM		F SHOW INTERVA	04241	- 943	001	•	
VERAGE DRILL RATE BEFORE SHOW			AVERAGI	E DRILL RATE DUR		- 943			
VERAGE DRILL RATE AFTER SHOW		6 min /	ft					3.5 m	in / ft
	<del></del> -	5 min /	ft						
AMDI E DECORIDEIONI ( IIII									
AMPLE DESCRIPTION (litt				icturing, fluore	scence. c	uts)		<del> </del>	
SH 40% yel 20%	rd 10% gn	20% ltgy 1	10% brn			<del></del>			
	<del></del>	<del></del>							
SS 10-20% mlky		-f gr fri-ι	incons sband	g-sbrd p	m srt	cly fl	slo	alc o	cc
w/mi	c incl								
						·			
			· · · · · ·						
			<u></u>						
					<del></del> ,				
			· · · · · · · · · · · · · · · · · · ·						
						****			
			·					<u></u>	
								-	
	1					· · · · · · · · · · · · · · · · · · ·			
DEPTH (feet)	9424'	94321	94381						
DEPTH (feet)	1	9432 <b>'</b> 1560	9438¹ 1280						
DEPTH (feet) OTAL (units)	9424'	1							
DEPTH (feet)  OTAL (units)  C1 (ppm)	9424'	1560	1280						
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)	9424' 1460 92805	1560 99162	1280 81363						
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	9424° 1460 92805 7008	1560 99162 7488	1280 81363 6144						
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	9424' 1460 92805 7008 6602	1560 99162 7488 7054	1280 81363 6144 5788 1603						
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	9424 1 1460 92805 7008 6602 1828	1560 99162 7488 7054 1953 2686	1280 81363 6144 5788						
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)	9424 1 1460 92805 7008 6602 1828	1560 99162 7488 7054 1953 2686 100	1280 81363 6144 5788 1603						
GAS INFORMATION DEPTH (feet) TOTAL (units) D1 (ppm) D2 (ppm) D3 (ppm) C4 (ppm) NC4 (ppm) NC4 (ppm) NC4 (ppm) NC4 (ppm)	9424 1 1460 92805 7008 6602 1828	1560 99162 7488 7054 1953 2686	1280 81363 6144 5788 1603						
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)	9424' 1460 92805 7008 6602 1828 2514	1560 99162 7488 7054 1953 2686 100 1.07	1280 81363 6144 5788 1603 2204	mud system)					
DEPTH (feet)  OTAL (units)  1 (ppm)  2 (ppm)  3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)  ATIO (Pk:BG)  OTHER COMMENTS (e.g	9424 1 1460 92805 7008 6602 1828 2514 torquing of bit. s	1560 99162 7488 7054 1953 2686 100 1.07	1280 81363 6144 5788 1603 2204						
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)  ATIO (Pk:BG)	9424 1 1460 92805 7008 6602 1828 2514 torquing of bit. s	1560 99162 7488 7054 1953 2686 100 1.07	1280 81363 6144 5788 1603 2204						
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)  ATIO (Pk:BG)  OTHER COMMENTS (e.g	9424 1 1460 92805 7008 6602 1828 2514 torquing of bit. s	1560 99162 7488 7054 1953 2686 100 1.07	1280 81363 6144 5788 1603 2204						
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  RC4 (ppm)  RET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	9424' 1460 92805 7008 6602 1828 2514 torquing of bit. s	1560 99162 7488 7054 1953 2686 100 1.07	1280 81363 6144 5788 1603 2204						
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)  IATIO (Pk:BG)  OTHER COMMENTS (e.g  NO TORQUE MUD	9424' 1460 92805 7008 6602 1828 2514 torquing of bit. s	1560 99162 7488 7054 1953 2686 100 1.07	1280 81363 6144 5788 1603 2204						

GREEN GREEN			IDANCE	OPPRIL OF CHOICE		:		42
	· - · · · · · · · · · · · · · · · · · ·	<del></del>		DEPTH OF SHOW INTERVAL		- 9446	1	
EVERAGE DRILL RATE BEFORE SHO		4.5 min/	ft	AVERAGE DRILL RATE DURING	SHOW		4	min / ft
VERAGE DRILL RATE AFTER SHOW		5 min /	ft		<u> </u>			
SAMPLE DESCRIPTION (III	hology, type and o	degree of porosi	ty, eviden	e of fracturing, fluoresco	ence, cuts)			
SH 50% yel 10% r	d 20% gn 20	)% brn						
S 20% clr trnsl wh		ng-sbang m	srt fr	i-uncons p cmt c	alc arg	ip occ s	ppt	y yel
lor w/slo yelbl ml	ky cut				<del></del>			
		<del> </del>						
	<u>.</u> .		_					
								,
					·			
						·		
ias information		······································				· · · · · · · · · · · · · · · · · · ·		
	9442'	9444'	944	В				
DEPTH (feet)	9442'	9444'	944					
DEPTH (feet)				0				
DEPTH (feet)  FOTAL (units)  C1 (ppm)	1360 6205	1720 79050	56 3934	9				
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)	1360	1720 79050 6000	56	9				
GAS INFORMATION DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm)	1360 6205 4744 5140	1720 79050 6000 6500	56 3934 257 203	0 9 6 8				
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	1360 6205 4744	1720 79050 6000	56 3934 257	0 9 6 B 2 2				
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	1360 6205 4744 5140 1546	1720 79050 6000 6500 1950 2523	56 3934 257 203 53	0 9 6 B 2				
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	1360 6205 4744 5140 1546	1720 79050 6000 6500 1950	56 3934 257 203 53	0 9 6 B 2				

ORMATION		4-15A2	SUNDANCE	1		SHOW REPOR	43
GREEN R	IVER		DEPTH OF S	HOW INTERVAL	9554'	- 9562 <b>'</b>	
VERAGE DRILL RATE BEFORE SHOW	N	4 min /	ft AVERAGE D	RILL RATE DURING	SHOW		2 min / ft
/ERAGE DRILL RATE AFTER SHOW		3 min/			- · · · · · · · · · · · · · · · · · · ·		
AMPLE DESCRIPTION (11th	lology, type and	degree of porosi	y, evidence of fract	uring, fluoresc	ence, cuts)	<u> </u>	
SH 20% yel 10% re	d 10% gn 20	% ltgy 40%	brn				
SH m-dkbrn brnbl	k occ ltbr	tn sbblky	-blky m-v hd	/brit xln,	suc tex	ip grdg	to arg LS
loc w/abnt fn	dess pyr i	ncl occ du	l yel flor w	/immed ltl	ol blyel	strmq cu	t
				<del></del>	<del></del>		
	-						
		· · · · · · · · · · · · · · · · · · ·					
				· · · · · · · · · · · · · · · · · · ·			<del> </del>
				· · · · · · · · · · · · · · · · · · ·			
				<del> </del>			
						<del> </del>	<u> </u>
			····				
AS INFORMATION		1			···	i	
EPTH (feet)	9550 <b>'</b>	9558'	9562				
OTAL (unite)	500	620	500				
OTAL (units)	1	10000	39270	1			
	39440	49960	33270				
C1 (ppm)	39440 3240	3480	3180				
C1 (ppm)	1	i					
C1 (ppm) C2 (ppm) C3 (ppm)	3240	3480	3180				
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	32 <b>4</b> 0 2860	3480 2925	3180 2015				
CTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NC4 (ppm)	3240 2860 480	3480 2925 480	3180 2015 480				
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	3240 2860 480	3480 2925 480 880	3180 2015 480				

GREEN RIVER			NDANCE	OF SHOW INTERVA		<u> </u>	44
					9,760'	- 9,770'	
VERAGE DRILL RATE BEFORE SHO		5.5 min	/ ft AVERA	GE DRILL RATE DUI	RING SHOW		7 min / ft
VERAGE DRILL RATE AFTER SHOV	v	5.5 min	/ ft				
SAMPLE DESCRIPTION (III	thology, type and	degree of poros	ity, evidence of f	racturing, fluor	escence, cu	s)	
SH 20% ltgy 80% o	dk gy	··· <u>-</u>					
SS uncons clr vfg	r sbang wsr	t					
IMMED MKY CUT / SI	LO YEL BLU	STM THRU S	MPL				
				1			
		-					
· · · · · · · · · · · · · · · · · · ·							
	9.760'	9.762	9.770				
GAS INFORMATION DEPTH (feet) FOTAL (units)	9,760' 410	9,762	9,770				
DEPTH (feet)  OTAL (units)	410	470	340				
DEPTH (feet)  COTAL (units)  C1 (ppm)	410 83,103	470 4,379	340 31,597				
	410 83,103 2,310	470 4,379 2,649	340 31,597 1,916				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	410 83,103 2,310 1,535	470 4,379 2,649 1,759	340 31,597 1,916 1,272				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	410 83,103 2,310 1,535 298	470 4,379 2,649 1,759 342	340 31,597 1,916 1,272 247				
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	410 83,103 2,310 1,535	470 4,379 2,649 1,759 342 627	340 31,597 1,916 1,272				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	410 83,103 2,310 1,535 298	470 4,379 2,649 1,759 342	340 31,597 1,916 1,272 247				

DEFTH OF SHOW INTERVAL   9,770   9,778   1	10/18/91	WELL NAME ∠	-15A2 SUNDA	NCE			SHOW REPORT	<b>*</b> 45
### APPLIED DESCRIPTION (lithology, type and degree of porosity, evidence of fracturing, fluorescence, cuts)  #### AMPLE DESCRIPTION (lithology, type and degree of porosity, evidence of fracturing, fluorescence, cuts)  #### SS clr vfgr ang-sbang wart  ### IMMED MKY CUT / SLO YEL STM THRU SMPL  #### AS INFORMATION  #### AS INFORMATION  #### EPTH (feet) 9,770 9,774 9,784   OTAL (units) 340 390 320   1 (ppm) 31,597 36,244 30,668   2 (ppm) 1,916 2,200 1,830   3 (ppm) 1,272 1,460 1,235   #### AMPLE DESCRIPTION (lithology, type and degree of porosity, evidence of fracturing, fluorescence, cuts)  *###################################	ORMATION		TOME SOME		SHOW INTERVAL	0.7701	0.700:	45
### AMPLE DESCRIPTION (Illihology, type and degree of porosity, evidence of fracturing, fluorescence, cuts)  SH 10% yel 50% ltqy 40% dk qy  TR SS clr vfgr ang-sbang wsrt  IMMED MKY CUT / SLO YEL STM THRU SMPL  AS INFORMATION  EPTH (feet) 9,770 9,774 9,784   OTAL (units) 340 390 320   1 (ppm) 31,597 36,244 30,668  2 (ppm) 1,916 2,200 1,830  3 (ppm) 1,272 1,460 1,235  24 (ppm) 247 284 240  C4 (ppm) 453 520 440  ET INCREASE (units) 50					RILL RATE DURING			
AMPLE DESCRIPTION (lithology, type and degree of porosity, evidence of fracturing, fluorescence, cuts)  SH 10% yel 50% ltqy 40% dk qy  TR SS clr vfgr ang-sbang wsrt  IMMED MKY CUT / SLO YEL STM THRU SMPL  ASSINFORMATION  DEPTH (feet) 9,770 9,774 9,784   OTAL (units) 340 390 320   Cl (ppm) 31,597 36,244 30,668   Cl (ppm) 1,916 2,200 1,830   Cl (ppm) 1,272 1,460 1,235   Cl (ppm) 247 284 240   ICA (ppm) 453 520 440   IET INCREASE (units) 50	VERAGE DRILL RATE AFTER SHOW			t	<u></u>		5	.8 min / It
SH 10% yel 50% ltgy 40% dk gy  TR SS clr vfgr ang-sbang wsrt  IMMED MKY CUT / SLO YEL STM THRU SMPL  ASSINFORMATION  SEPTH (feet) 9,770 9.774 9.784   OTAL (units) 340 390 320   II (ppm) 31,597 36,244 30,668   II (ppm) 1,916 2,200 1,830   II (ppm) 1,272 1,460 1,235    CA (ppm) 247 284 240    CA (ppm) 247 284 240    CA (ppm) 453 520 440    SET INCREASE (units) 50			7.5 min/f	<u> </u>		**-	· <u>, </u>	
SH 10% yel 50% ltgy 40% dk gy  TR SS clr vfgr ang-sbang wsrt  IMMED MKY CUT / SLO YEL STM THRU SMPL  ASSINFORMATION  DEPTH (feet) 9,770 9,774 9,784   OTAL (units) 340 390 320   Cl (ppm) 31,597 36,244 30,668   Cl (ppm) 1,916 2,200 1,830   Cl (ppm) 1,272 1,460 1,235   CA (ppm) 247 284 240   CA (ppm) 247 284 240   IET INCREASE (units) 50	AMDIE DESCRIPTION / III	hology type and	doctor of manager		turing fluores	<b></b>		
TR SS clr vfgr ang-sbang wsrt  IMMED MKY CUT / SLO YEL STM THRU SMPL   BASINFORMATION  SEPTH (feet) 9,770 9,774 9,784 9,784 9,784 30,668 320 320 320 320 320 320 320 320 320 320		* ***		, evidence of frac	turing, nuoresce	nce, cuts )		
IMMED MKY CUT / SLO YEL STM THRU SMPL  ASS INFORMATION  DEPTH (feet) 9,770 9,774' 9,784'  OTAL (units) 340 390 320  C1 (ppm) 31,597 36,244 30,668  C2 (ppm) 1,916 2,200 1,830  C3 (ppm) 1,272 1,460 1,235  C4 (ppm) 247 284 240  IC4 (ppm) 453 520 440  IET INCREASE (units) 50					*****			
AS INFORMATION  DEPTH (feet) 9,770 9,774' 9,784'  OTAL (units) 340 390 320  C1 (ppm) 31,597 36,244 30,668  C2 (ppm) 1,916 2,200 1,830  C3 (ppm) 1,272 1,460 1,235  C4 (ppm) 247 284 240  IC4 (ppm) 453 520 440  IET INCREASE (units) 50								
DEPTH (feet) 9,770 9,774' 9,784'  COTAL (units) 340 390 320  C1 (ppm) 31,597 36,244 30,668  C2 (ppm) 1,916 2,200 1,830  C3 (ppm) 1,272 1,460 1,235  C4 (ppm) 247 284 240  MC4 (ppm) 453 520 440  MET INCREASE (units) 50	IMMED MKY CUT /	SLO YEL STM	THRU SMPL		,		<del></del>	
DEPTH (feet) 9,770 9,774' 9,784'  TOTAL (units) 340 390 320  C1 (ppm) 31,597 36,244 30,668  C2 (ppm) 1,916 2,200 1,830  C3 (ppm) 1,272 1,460 1,235  C4 (ppm) 247 284 240  NC4 (ppm) 453 520 440  NET INCREASE (units) 50								
DEPTH (feet) 9,770 9,774' 9,784'  TOTAL (units) 340 390 320  C1 (ppm) 31,597 36,244 30,668  C2 (ppm) 1,916 2,200 1,830  C3 (ppm) 1,272 1,460 1,235  C4 (ppm) 247 284 240  NC4 (ppm) 453 520 440  NET INCREASE (units) 50								
DEPTH (feet) 9,770 9,774' 9,784'  TOTAL (units) 340 390 320  C1 (ppm) 31,597 36,244 30,668  C2 (ppm) 1,916 2,200 1,830  C3 (ppm) 1,272 1,460 1,235  C4 (ppm) 247 284 240  NC4 (ppm) 453 520 440  NET INCREASE (units) 50								
DEPTH (feet) 9,770 9,774' 9,784'  COTAL (units) 340 390 320  C1 (ppm) 31,597 36,244 30,668  C2 (ppm) 1,916 2,200 1,830  C3 (ppm) 1,272 1,460 1,235  C4 (ppm) 247 284 240  MC4 (ppm) 453 520 440  MET INCREASE (units) 50							-	
DEPTH (feet) 9,770 9,774' 9,784'  COTAL (units) 340 390 320  C1 (ppm) 31,597 36,244 30,668  C2 (ppm) 1,916 2,200 1,830  C3 (ppm) 1,272 1,460 1,235  C4 (ppm) 247 284 240  MC4 (ppm) 453 520 440  MET INCREASE (units) 50								
DEPTH (feet)     9,770     9,774'     9,784'       COTAL (units)     340     390     320       C1 (ppm)     31,597     36,244     30,668       C2 (ppm)     1,916     2,200     1,830       C3 (ppm)     1,272     1,460     1,235       C4 (ppm)     247     284     240       IC4 (ppm)     453     520     440       IET INCREASE (units)     50							<u> </u>	
DEPTH (feet)     9,770     9,774'     9,784'       OTAL (units)     340     390     320       C1 (ppm)     31,597     36,244     30,668       C2 (ppm)     1,916     2,200     1,830       C3 (ppm)     1,272     1,460     1,235       C4 (ppm)     247     284     240       IC4 (ppm)     453     520     440       IET INCREASE (units)     50					<del>_</del>			
DEPTH (feet)     9,770     9,774'     9,784'       COTAL (units)     340     390     320       C1 (ppm)     31,597     36,244     30,668       C2 (ppm)     1,916     2,200     1,830       C3 (ppm)     1,272     1,460     1,235       C4 (ppm)     247     284     240       IC4 (ppm)     453     520     440       IET INCREASE (units)     50						· · · · · · · · · · · · · · · · · · ·		
DEPTH (feet) 9,770 9,774' 9,784'  COTAL (units) 340 390 320  C1 (ppm) 31,597 36,244 30,668  C2 (ppm) 1,916 2,200 1,830  C3 (ppm) 1,272 1,460 1,235  C4 (ppm) 247 284 240  AC4 (ppm) 453 520 440  AET INCREASE (units) 50								
DEPTH (feet) 9,770 9,774' 9,784'  COTAL (units) 340 390 320  C1 (ppm) 31,597 36,244 30,668  C2 (ppm) 1,916 2,200 1,830  C3 (ppm) 1,272 1,460 1,235  C4 (ppm) 247 284 240  MC4 (ppm) 453 520 440  MET INCREASE (units) 50								
DEPTH (feet) 9,770 9,774' 9,784'  TOTAL (units) 340 390 320  C1 (ppm) 31,597 36,244 30,668  C2 (ppm) 1,916 2,200 1,830  C3 (ppm) 1,272 1,460 1,235  C4 (ppm) 247 284 240  NC4 (ppm) 453 520 440  NET INCREASE (units) 50		·						
TOTAL (units)  340 390 320  C1 (ppm)  31,597 36,244 30,668  C2 (ppm)  1,916 2,200 1,830  C3 (ppm)  1,272 1,460 1,235  C4 (ppm)  247 284 240  NC4 (ppm)  453 520 440  NET INCREASE (units)  50								
TOTAL (units) 340 390 320  C1 (ppm) 31,597 36,244 30,668  C2 (ppm) 1,916 2,200 1,830  C3 (ppm) 1,272 1,460 1,235  C4 (ppm) 247 284 240  NC4 (ppm) 453 520 440  NET INCREASE (units) 50	IAS INFORMATION	<del></del>			<u> </u>	<del></del>	i	
C1 (ppm) 31,597 36,244 30,668 C2 (ppm) 1,916 2,200 1,830 C3 (ppm) 1,272 1,460 1,235 C4 (ppm) 247 284 240 AC4 (ppm) 453 520 440 AET INCREASE (units) 50	EPTH (feet)	9,770	9,774'	9,784'				
C2 (ppm)     1,916     2,200     1,830       C3 (ppm)     1,272     1,460     1,235       C4 (ppm)     247     284     240       NC4 (ppm)     453     520     440       NET INCREASE (units)     50	OTAL (units)	340	390	320				
C3 (ppm) 1,272 1,460 1,235 C4 (ppm) 247 284 240 C4 (ppm) 453 520 440 C4 (ppm) 50 C4 (ppm) 50 C4 (ppm) C453 5	31 (ppm)	31,597	36,244	30,668				
C3 (ppm) 1,272 1,460 1,235 C4 (ppm) 247 284 240 C4 (ppm) 453 520 440 C4 (ppm) 50 C4 (ppm) 60 C4 (ppm)	22 (ppm)	1,916	2,200	1,830				
C4 (ppm) 247 284 240  NC4 (ppm) 453 520 440  NET INCREASE (units) 50	3 (ppm)	1						
NC4 (ppm) 453 520 440 NET INCREASE (units) 50								
NET INCREASE (units) 50		i						
	•	433		440				<del>                                     </del>
1.14						<u>, , , , , , , , , , , , , , , , , , , </u>		
	IATIO (PR:BG)		1.14	. :	1	<del></del>	<u> </u>	<u> </u>
	THER COMMENTS (e.g	torquing of bit. s	pikey drill time or	gas, changes in f	nud system )			<del></del>
OTHER COMMENTS (e.g torquing of bit. spikey drill time or gas, changes in mud system)	NO INDICATION O	F TO	MUD WT. 8	6.6+				
NO INDICATION OF TO MUD WT. 8.6+					· - · · · · · · · · · · · · · · · · · ·			
		<del></del>						
	ORRELATION W/CONTRO	L WELL (S)			****			
NO INDICATION OF TO MUD WT. 8.6+	ORRELATION W/CONTRO	L WELL(S)						

ORMATION	_	4-15A2 S		DEPTH OF SHOW	V INTERVAL						46
GREEN RIVE				AVERAGE DRILL		1		0 - :	10,20	6 <b>'</b>	
	' .	7 min	ift '		NATE DUN					6	min / ft
VERAGE DRILL RATE AFTER SHOW		7.5 min	/ ft					<u></u>			
AMPLE DESCRIPTION (lith SH 10% ltgy 10% di	<del></del>		sity, evidenc	e of fracturin	g, fluore	scence.	cuts)				
SH blk sbblky-ang	splty m-v	hd brit s	olty ip	occ carb	w/fn	dess	pyr	incl	sl-m	са	lc dol:
ip											
v slo strmg yelgn	cut in tot	al spl									
									_		
			····								
						-	·				
			***								
AS INFORMATION											
	10198	10204	102	10							
EPTH (feet)	10198	10204	102:								
EPTH (feet) OTAL (units)	230	320	2:	10							
EPTH (feet) OTAL (units) 1 (opm)	230 21982	320 39464	199	10 92							
EPTH (feet) OTAL (units) 1 (opm) 2 (ppm)	230 21982 1380	320 39464 1920	1999	10 92 60							
EPTH (feet)  OTAL (units)  1 (opm)  2 (ppm)  3 (ppm)	230 21982 1380 747	320 39464 1920 1040	1999 120 683	10 92 60							
EPTH (feet)  OTAL (units)  1 (opm)  2 (ppm)  3 (ppm)	230 21982 1380 747 184	320 39464 1920 1040 256	1999 120 683	10 92 60 2							
EPTH (feet)  OTAL (units)  1 (ppm)  2 (ppm)  3 (ppm)  C4 (ppm)	230 21982 1380 747	320 39464 1920 1040 256 294	1999 120 683	10 92 60							
EPTH (feet)  OTAL (units)  1 (opm)  2 (ppm)  3 (ppm)  C4 (ppm)  C4 (ppm)  ET INCREASE (units)	230 21982 1380 747 184	320 39464 1920 1040 256 294 90	1999 120 683	10 92 60 2 68							
EPTH (feet)  OTAL (units)  1 (opm)  2 (ppm)  3 (ppm)  C4 (ppm)  C4 (ppm)  ET INCREASE (units)	230 21982 1380 747 184	320 39464 1920 1040 256 294	1999 120 683	10 92 60 2 68 93							
EPTH (feet)  OTAL (units)  1 (opm)  2 (ppm)  3 (ppm)  C4 (ppm)  C4 (ppm)  ET INCREASE (units)  ATIO (Pk:BG)	230 21982 1380 747 184 212	320 39464 1920 1040 256 294 90 1.39	1999 120 683 10	10 92 60 2 68 93							
EPTH (feet)  OTAL (units)  1 (opm)  2 (ppm)  3 (ppm)  C4 (ppm)  ET INCREASE (units)  ATIO (Pk:BG)  THER COMMENTS (e.g)	230 21982 1380 747 184 212	320 39464 1920 1040 256 294 90 1.39	1999 120 683 10 119	10 92 60 2 68 93	system)	чттатт	ON	ROM	DIIMD	ppc	RT.FMC
EPTH (feet)  OTAL (units)  1 (opm)  2 (ppm)  3 (ppm)  C4 (ppm)  ET INCREASE (units)  ATIO (Pk:BG)  THER COMMENTS (e.g)	230 21982 1380 747 184 212	320 39464 1920 1040 256 294 90 1.39	1999 120 683 10 119	10 92 60 2 68 93	system)	TUATI	ON F	ROM	PUMP	PRC	BLEMS
EPTH (feet)  OTAL (units)  1 (opm)  2 (ppm)  3 (ppm)  C4 (ppm)  ET INCREASE (units)  ATIO (Pk:BG)  OTHER COMMENTS (e.g)	230 21982 1380 747 184 212	320 39464 1920 1040 256 294 90 1.39	1999 120 683 10 119	10 92 60 2 68 93	system)	TUATI	ON F	ROM	PUMP	PRC	BLEMS
EPTH (feet)  OTAL (units)  1 (opm)  2 (ppm)  3 (ppm)  C4 (ppm)  C4 (ppm)  ET INCREASE (units)  ATIO (Pk:BG)  THER COMMENTS (e.g)	230 21982 1380 747 184 212 corquing of bit. sp	320 39464 1920 1040 256 294 90 1.39	1999 120 683 10 119	10 92 60 2 68 93	system)	TUATI	ON F	ROM	PUMP	PRC	BLEMS

GREEN GREEN				E			47
			CEPT	H OF SHOW INTERVAL	10216'	- 10224'	
VERAGE DRILL RATE BEFORE S	SHOW	6.5 min / f	AVER	AGE DRILL RATE DURI	NG SHOW		5 min / ft
VERAGE DRILL RATE AFTER SH	ow	6.5 min / f	ft				
AMPLE DESCRIPTION (	lithology, type and d	egree of porosit	y, evidence of	fracturing, fluores	cence, cuts)		
SH 10% dkgy 8	0% blk 10% br	n					
SH blk sbblky	-sbplty ang m	-v hd v bri	it occ sl	rthy/carb	v fn dess	pyr ip sl	-m calc
slty/gtty	sl dolic ip			1			
				*			
v wk yelgn cu	t in total sp	1					
			4				
			Televica.				
				ii			
GAS INFORMATION							
	10216	10220	10226				
DEPTH (feet)	10216 200	10220 330	10226				
DEPTH (feet)  OTAL (units)	<del></del>	:	_				
DEPTH (feet)  TOTAL (units)  C1 (ppm)	200	330	240				
OEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)	200 19040	330 31416	240 22848				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	200 19040 1200	330 31416 1980	240 22848 1440				
CEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	200 19040 1200 650	330 31416 1980 1072	240 22848 1440 779				
GAS INFORMATION DEPTH (feet) FOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm)	200 19040 1200 650 160	330 31416 1980 1072 264	240 22848 1440 779 192				
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	200 19040 1200 650 160	330 31416 1980 1072 264 304	240 22848 1440 779 192				

10/20/91	WELL NAME	4-15A2 S	SUNDANCE			SHO	W REPORT # 48	3
ORMATION GREEN RI	VER		DEPTH O	F SHOW INTERVAL	1023	6 <b>'</b> - 10	242'	
VERAGE DRILL RATE BEFORE SHOW		<b>7</b> min / :		DRILL RATE DURI	NG SHOW	<del></del>	6 mi	n / ft
VERAGE DRILL RATE AFTER SHOW		8 min / 1	<del></del>					
AMPLE DESCRIPTION (lith	ology, type and d	egree of porosit	y, evidence of fra	cturing, fluore	scence, cu	ts)		
SH 30% yel 10% l	tay 20% dka	ry 30% blk	10% brn					
				- · · · · · · · · · · · · · · · · · · ·				
SH lt-dkgy gyblk	blk sbblky	-pltv occ	firr m-v h	d brit sl	pyric	ip occ	sltv/attv	
sl-v calc loc							<u>//                                 </u>	
					<del></del>			
v slo yelgn strm	or cut in sr	· · · · · · · · · · · · · · · · · · ·		<u>'</u>				
1	-, <u> 5</u>			iii				
			<del></del>			<del></del>		<u></u>
			<del></del>			<u> </u>		
						<del></del>		
AS INFORMATION								
EPTH (feet)	10236'	10240'	10244'					
OTAL (units)	240	310	280					
21 (ppm)	22848	29440	27659					
22 (ppm)	1440	2352	2016					
C3 (ppm)	779	1404	1139					
C4 (ppm)	192	292	156					
NC4 (ppm)	221	368	321					
IET INCREASE (units)		70						
RATIO (Pk:BG)		1.29		<u> </u>				
			·	<del> </del>	<u>:</u>		J.	
THER COMMENTS (e.g	orquing of bit. sp	ikey drill time o	rgas, changes in	mud system )				
	# 2 2 7 110	SPM						
NO TORQUE PUME	11 2 111		<del></del>					
NO TORQUE PUME	W Z AT II							
NO TORQUE PUME	" Z AL III							
NO TORQUE PUME								

	WELL NAME	-15A2 SUNDA				SHOW REPOR	49
GREEN RI			DEPTH OF SHO	W INTERVAL	10388	- 10406'	
VERAGE DRILL RATE BEFORE SHOW	v	<b>7</b> min / ft	AVEPAGE DRIL	L RATE DURIN	SHOW		<b>6</b> min / ft
VERAGE DRILL RATE AFTER SHOW		7 min / ft					
AMPLE DESCRIPTION (11th	ology, type and de	egree of porosity,	evidence of fractur	ing, fluores	ence, cuts	)	
SH 10% yel 20% lt	gy 20% dkgy	10% blk 40	% brn				
20% SS clr trnsl	brn vf-f gr	ang-sbang	m srt fri-oc	c uncon	s р-т сп	t calc are	j ip occ
brn stn wk	strmg yelg	m cut					
					_		
**10390' - 10410'	not circul	ated up pri	or to TOOH f	or bit	- data	inconclus	sive
					····		
			· · · · · · · · · · · · · · · · · · ·	<del></del>	· · · · · · · · · · · · · · · · · · ·		
					•		
AS INFORMATION					٠		
	10386'	10390'	10418'		·		İ
DEPTH (feet)	10386° 240	10390' 390	10418 <b>'</b> 360				İ
OEPTH (feet)							
OEPTH (feet) OTAL (units)	240	390	360				
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)	240 24640	390 38400	360 34560				
DEPTH (feet)  OTAL (units)  O1 (ppm)  O2 (ppm)  O3 (ppm)	240 24640 1440	390 38400 3168	360 34560 2160				
OEPTH (feet) OTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	240 24640 1440 884	390 38400 3168 1456	360 34560 2160 1105				
OEPTH (feet) OTAL (units) O1 (ppm) O2 (ppm) O3 (ppm) O4 (ppm)	240 24640 1440 884 80	390 38400 3168 1456 160	360 34560 2160 1105 200				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)	240 24640 1440 884 80	390 38400 3168 1456 160 368 150	360 34560 2160 1105 200 460				
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)	240 24640 1440 884 80	390 38400 3168 1456 160 368	360 34560 2160 1105 200 460				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)  ATIO (Pk:BG)	240 24640 1440 884 80 207	390 38400 3168 1456 160 368 150 1.6	360 34560 2160 1105 200 460				
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NC4 (ppm)  NC4 (ppm)  NC4 (ppm)	240 24640 1440 884 80 207	390 38400 3168 1456 160 368 150 1.6	360 34560 2160 1105 200 460	i system)			
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  HC4 (ppm)  HET INCREASE (units)  RATIO (Pk:BG)	240 24640 1440 884 80 207	390 38400 3168 1456 160 368 150 1.6	360 34560 2160 1105 200 460	i system)			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  DTHER COMMENTS (e.g t	240 24640 1440 884 80 207	390 38400 3168 1456 160 368 150 1.6	360 34560 2160 1105 200 460	i system)			
GAS INFORMATION DEPTH (feet) TOTAL (units) C1 (opm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG) DTHER COMMENTS (e.g 1	240 24640 1440 884 80 207	390 38400 3168 1456 160 368 150 1.6	360 34560 2160 1105 200 460	i system)			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NC4 (ppm)  NCTINCREASE (units)  RATIO (Pk:BG)  THER COMMENTS (e.g	240 24640 1440 884 80 207 torquing of bit, sp	390 38400 3168 1456 160 368 150 1.6	360 34560 2160 1105 200 460	i system)			
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  HC4 (ppm)  HET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	240 24640 1440 884 80 207 torquing of bit, sp	390 38400 3168 1456 160 368 150 1.6	360 34560 2160 1105 200 460	i system)			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  DTHER COMMENTS (e.g t	240 24640 1440 884 80 207 torquing of bit, sp	390 38400 3168 1456 160 368 150 1.6	360 34560 2160 1105 200 460	i system)			

VERAGE DRILL RATE BEFORE SHOW VERAGE DRILL RATE AFTER SHOW  AMPLE DESCRIPTION (lithology SH 20% 1tgy 40% dkg)  40% SS mlky 1tgy vf-		6.5 min / ft 6 min / ft		E DRILL RATE DURING	3 SHOW	5.	.5 <sub>min / fi</sub>
AMPLE DESCRIPTION (lithology SH 20% 1tgy 40% dkg		6 min / ft		ecturing, fluoress		<del></del>	11117 11
SH 20% 1tgy 40% dkg			<del></del>	ecturing, fluorese	<del></del>		
SH 20% ltgy 40% dkg		gree of porosity	evidence of fra	ecturing, fluoresc			
	y 10% blk		, origenice of his	,,	cence. cuts )		
		30% brn					
40% SS mlkv ltav vf							
	-f gr m-w	srt sbang	-sbrd occ	xln w srt	calc sl	arg occ xlı	ı lam
sh frags pos	s frac or	vug fl					
fair show of oil in	possum b	elly 5% co	verage				
immed strmg mlky ye	lbrn-yelb	ol cut in s	pl				
		<del></del>					
					<del></del>		
					· · · · · · · · · · · · · · · · · · ·		
	·	——————————————————————————————————————					
AS INFORMATION	·						
1	10484'	10486'	10490'	10494'	10504'	10508'	
EPTH (feet)	10 <b>484</b> '	10486 <b>'</b> 400	10490*	10494 <b>'</b> 1290	10504 <b>'</b> 420	10508' 380	
OTAL (units)							
OTAL (units)	360	400	400	1290	420	380	
OEPTH (feet) OTAL (units) O1 (ppm) O2 (ppm)	360 33080	400 37760	400 36480	1290 98613	420 38400	380 34560	
OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	360 33080 2304	400 37760 2400	400 36480 2592	1290 98613 10994	420 38400 2688	380 34560 2304	
OEPTH (feet) OTAL (units) O1 (ppm) O2 (ppm) O3 (ppm) O4 (ppm)	360 33080 2304 1774	400 37760 2400 1300	400 36480 2592 1196	1290 98613 10994 5590	420 38400 2688 1456	380 34560 2304 1248	
OEPTH (feet) OTAL (units)	360 33080 2304 1774 224	400 37760 2400 1300 224	400 36480 2592 1196 192	1290 98613 10994 5590 803 1319	420 38400 2688 1456 192	380 34560 2304 1248 160	

		4-15A2 SUI			SHOW R		51
GREEN RI			DEPTH OF SHO	105	22' - 10546	51	<u> </u>
/ERAGE DRILL RATE BEFORE SHO	)W	6 min / ft		RATE DURING SHO	N	4	min / fi
VERAGE DRILL RATE AFTER SHOV	٧	8 min/ft					
						<del></del>	
AMPLE DESCRIPTION ( lit	hology, typ <del>e</del> and d	egree of porosity	, evidence of fracturi	ng, fluorescence	. cuts )		
SH 20% ltgy 80	% dkgy						
						_	
SLTST 10% ltgy	blky hd v	alc arg					
					M		
immed pale yel	bl mlky cut	w/pale yel	strm res w/o	dk orng flo	r		
incr oil in	ggum ha11 1	009 000		:1 13-			
incr oil in po	ssum belly 2	os suriace	coverage w/o	TT Desas			<u></u>
				· · · · · · · · · · · · · · · · · · ·			
			,				
······································				····			
AS INFORMATION	144.71						
	10522	10526'	10546'			!	
EPTH (feet)	10522 <b>'</b> 320	10526 <b>'</b> 3480	10546 <b>'</b> 540			!	
EPTH (feet) OTAL (units)							
DEPTH (feet) OTAL (units)	320	3480	540				
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)	320 29103	3480 224000	540 44800				
OEPTH (feet) OTAL (units) C1 (ppm) C2 (ppm) C3 (ppm)	320 29103 1940	3480 224000 35040	540 44800 4140				
OEPTH (feet) OTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	320 29103 1940 1051 135	3480 224000 35040 19500	540 44800 4140 2145 240				
DEPTH (feet)  OTAL (units)  O1 (ppm)  O2 (ppm)  O3 (ppm)  C4 (ppm)	320 29103 1940 1051	3480 224000 35040 19500 2240 4600	540 44800 4140 2145 240 517				
DEPTH (feet)  OTAL (units)  OTAL (ppm)	320 29103 1940 1051 135	3480 224000 35040 19500 2240 4600 3160	540 44800 4140 2145 240 517 220				
GAS INFORMATION DEPTH (feet) FOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NC4 (ppm) NC4 (ppm) NC4 (ppm)	320 29103 1940 1051 135	3480 224000 35040 19500 2240 4600	540 44800 4140 2145 240 517				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)  RATIO (Pk: BG)	320 29103 1940 1051 135 310	3480 224000 35040 19500 2240 4600 3160 10.9	540 44800 4140 2145 240 517 220 1.7				
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)  MATIO (Pk:BG)	320 29103 1940 1051 135 310	3480 224000 35040 19500 2240 4600 3160 10.9	540 44800 4140 2145 240 517 220 1.7	system)			
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)  MATIO (Pk:BG)	320 29103 1940 1051 135 310	3480 224000 35040 19500 2240 4600 3160 10.9	540 44800 4140 2145 240 517 220 1.7 gas, changes in mud		JT.		
DEPTH (feet)  OTAL (units)  O1 (ppm)  O2 (ppm)  O3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	320 29103 1940 1051 135 310	3480 224000 35040 19500 2240 4600 3160 10.9	540 44800 4140 2145 240 517 220 1.7 gas. changes in mud		JT .		
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  HC4 (ppm)  HC4 (ppm)  HCT INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g  SL BIT TORQUE 20	320 29103 1940 1051 135 310 torquing of bit. sp	3480 224000 35040 19500 2240 4600 3160 10.9	540 44800 4140 2145 240 517 220 1.7 gas. changes in mud		PT.		
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  HC4 (ppm)  HC4 (ppm)  HCT INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g  SL BIT TORQUE 20	320 29103 1940 1051 135 310 torquing of bit. sp	3480 224000 35040 19500 2240 4600 3160 10.9	540 44800 4140 2145 240 517 220 1.7 gas. changes in mud		PT .		
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC6 (ppm)  NC7 (ppm)  NC7 (ppm)  NC7 (ppm)  NC8 (ppm)  NC9 (ppm)	320 29103 1940 1051 135 310 torquing of bit. sp	3480 224000 35040 19500 2240 4600 3160 10.9	540 44800 4140 2145 240 517 220 1.7 gas. changes in mud		FT		

GREEN RI	· · · · · · · · · · · · · · · · · · ·	4-15A2 SUI			SHOW REPORT	52
	VER	·	DEPTH OF SHO	DW INTERVAL 1058	2' - 10590'	
ERAGE DRILL RATE BEFORE SHOW	v	5 - 7 <sub>min/fi</sub>	AVERAGE DRII	L RATE DURING SHOW	2	.5 min/ft
VERAGE DRILL RATE AFTER SHOW		7 min / fi				
						<u>, -                                   </u>
AMPLE DESCRIPTION ( lith	ology, type and de	gree of porosity	, evidence of fractur	ring, fluorescence.	cuts)	
SH 20% ltgy 30	% dkgy 10%	blk 40% bri	n			
· · · · · · · · · · · · · · · · · · ·						
SS 30% clr trn	sl mlky vf-	f gr occ s	lt sz ang-sba	ng m-p srt f	ri-m hd p-m c	mt calc
осс ру	ric loc w/d	k brn-brnb	lk stn w/imme	d blwh cut o	cc yelgn strm	w/bri
yel ri	ng res flor					
sl incr oil co	verage on m	ıd				
			·			
AS INFORMATION						
	10580'	105881	10594*			
EPTH (feet)	10580'	105881	10594'			
OTAL (units)	360	800	350			
DEPTH (feet) OTAL (units)	360	800 75520	350 30720			
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)	360 33120 2280	800 75520 5520	350 30720 2160			
COTAL (units) COTAL (ppm) COTAL (ppm) COTAL (ppm)	360 33120 2280 1495	800 75520 5520 3152	350 30720 2160 1330			
OTAL (units)  1 (ppm) 2 (ppm) 3 (ppm)	360 33120 2280 1495 280	800 75520 5520 3152 560	350 30720 2160 1330 280			
OEPTH (feet) OTAL (units) OTAL (ppm) OTAL (ppm) OTAL (ppm) OTAL (ppm) OTAL (ppm)	360 33120 2280 1495	800 75520 5520 3152 560 1035	350 30720 2160 1330			
OEPTH (feet) OTAL (units) C1 (ppm) C2 (ppm) C3 (ppm)	360 33120 2280 1495 280	800 75520 5520 3152 560	350 30720 2160 1330 280			

calc occ as	ft y, evidence of fracturing, flu n	10,708 DURING SHOW	3- 10,720'	7 min	/ ft
degree of porosition by the calc occ as RM BRIT SUCK	ft ft ft ft  ry, evidence of fracturing, flu fin  s lam on SH  R SL DOLO SDY IP	DURING SHOW		7 min	/ ft
degree of porosition by the calc occ as RM BRIT SUCK	y, evidence of fracturing, fluction  In Stam on SH  R SL DOLO SDY IP	orescence, cut	is)		
degree of porosit  blk 10% br  calc occ as  M BRIT SUCE	y, evidence of fracturing, fluctions In SH SL DOLO SDY IP	orescence, cut			
calc occ as	s lam on SH	orescence, cui			
calc occ as	s lam on SH				
RM BRIT SUCE	R SL DOLO SDY IP				
RM BRIT SUCE	R SL DOLO SDY IP				
STRM DK F					
	RES W ORNG FLOR				
	RES W ORNG FLOR				
	CES W ORNG FLOR				
ŒR					
LEK		and the second of the second o			
		<del></del>			
			,		
ĺ		1	i		
6,400		!			
307,200	115,200				
52,800	17,040				
39,000	10,400				
5,120	1,280				
11 040	2 200				
11,040	2,300	<del></del>			
5,960	2,300				
	52,800 39,000 5,120	6,400 2,560 307,200 115,200 52,800 17,040 39,000 10,400 5,120 1,280	6,400 2,560 307,200 115,200 52,800 17,040 39,000 10,400	6,400 2,560  307,200 115,200  52,800 17,040  39,000 10,400  5,120 1,280	6,400 2,560  307,200 115,200  52,800 17,040  39,000 10,400  5,120 1,280

10/28/91	VELL NAME	4-15A2 SUNE	ANCE			SHOW REPORT	T # 54
GREEN RIV				CF SHOW INTERVAL	10744	- 10752 <b>'</b>	
VERAGE DRILL RATE BEFORE SHOW		<u> </u>		AGE DRILL RATE DURIN		10752	4 / 44
VERAGE DRILL RATE AFTER SHOW		6 min / f					4 min / ft
		<b>6</b> min / f	<u>t</u>		·		
SAMPLE DESCRIPTION (litt	noingy, type and d	legree of norosity	, evidence of	fracturing fluores	cence cuts)		
		legies or porositi	, evidence or	macturing, nuores	<u> </u>		
SH 70% ltgy 30	* brn						
		<del></del>					
SS ltgy trnsl v	f-f gr ang-	sbang m-w s	rt fri-m	hd w cmt ca	lc NFSOC		<del></del>
		·					
<del></del>							
		<del> </del>					
		·	· · · · · · · · · · · · · · · · · · ·				··· · · · · · · · · · · · · · · · · ·
		· · · · · · · · · · · · · · · · · · ·					
SAS INFORMATION							
	307441	107501	107601				
DEPTH (feet)	10744'	10750'	10762'				
OTAL (units)	70	150	60	. !			
01 (ppm)	4100	8914	3840				
02 (ppm)	780	1671	660	:			
C3 (ppm)	520	1114	480				
C4 (ppm)	180	180	56		·		
NC4 (ppm)	173	370	115				
NET INCREASE (units)		80					
RATIO (Pk:BG)		2.1	-				
	i				<u> </u>		
THER COMMENTS (e.g	torquing of bit. sp	oikey drill time or	gas, change	in mud system)			
NO TORQUE DRIL	LING WITH B	RINE WATER	9.3 WT				
						<del></del>	
CORRELATION W / CONTRO	L WELL (S)						
				· · · · · · · · · · · · · · · · · · ·			

ORMATION GREEN RIVER	WELL NAME	4-15A2 SUND	ANCE			SHOW REP	OH1 #	55
			DEPTH OF SH	OW INTERVAL	10792'	- 10802 <b>'</b>		
VERAGE DRILL RATE BEFORE SHOW	1	10.5 min/ft	AVERAGE DR	ILL RATE DURING	SHOW	6 -	12	min / ft
VERAGE DRILL RATE AFTER SHOW		9.5 min/ft		<del>- 14 - 14 - 14 - 14 - 14 - 14 - 14 - 14</del>		. and		
	<del></del>					<del></del>		
SAMPLE DESCRIPTION (lith	ology, type and de	egree of porosity,	evidence of fractu	ırıng, fluoresi	ence, cuts			
SH 20% 1tgy 60%	dkgy 20% br	n						
	_		_		<u> </u>			
SH 70% lt-dkgy g	ybrn sbblky	-ireg sft-m	hd m-v cal	c lmy fn	dess py	r slty		
					<del></del>			
DOL 30% clr trns	l gybrn crp	-v crs xln	brit dns v	hd sl sl	y ip pr	ed cln p	oss	frac's
	n stn w/slo	<del></del>						
	· · · · · · · · · · · · · · · · · · ·							
					. ,			
· · · · · · · · · · · · · · · · · · ·								
SAS INFORMATION								
EPTH (feet)	10792'	108021	10804	.				
OTAL (units)	40	220	76					
01 (ppm)	3439	12528	5400				_	
	640	2840	1040			1		!
C2 (ppm)	0.10							
	405	1892	660					
C2 (ppm) C3 (ppm) C4 (ppm)	i		1					
C3 (ppm)	405	1892	660					
C3 (ppm)	<b>4</b> 05 66	1892 275 546	660 110					
C3 (ppm) C4 (ppm) NC4 (ppm)	<b>4</b> 05 66	1892 275	660 110					

			DEPTH OF SHO	10,	380'-10,836	·
VERAGE DRILL RATE BEFORE SHO	W	7.5 min /	ft AVERAGE DRIL	L RATE DURING SHO	DW W	9 min / ft
VERAGE DRILL RATE AFTER SHOW		7.5 min /				
					<del></del>	
SAMPLE DESCRIPTION (litt	nology, type and	degree of porosi	ty, evidence of fractur	ing, fluorescenc	e. cuts )	
SH 10% 1tqy 70% d	kgy 20% bri	n				
	· · · · · · · · · · · · · · · · · · ·					
SH 90% lt-dkgy sb	blky-incs	frm-mhd m-v	calc vslty ow	/thn foss	ls intbds	***
DOL 10% clr trnsl	gybrn ang	-blkv m-vhd	d cro-crsxln s	uc/gran ip	occ sltv/ar	σ .
DON TO OTT CTIOT	91223 433		- O-P O-D	1		
					·.	
	· · · · · · · · · · · · · · · · · · ·					
· · · · · · · · · · · · · · · · · · ·						
			·	,		
AS INFORMATION				,		
· · · · · · · · · · · · · · · · · · ·	10,830	10,836'	10,838'	,		İ
DEPTH (feet)	10,830 40	10,836'	10,838'			
DEPTH (feet)  OTAL (units)	40	64	64			
DEPTH (feet) FOTAL (units) C1 (ppm)	40 3,132	64 6,586	64 4.644			
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)	40 3,132 560	64 6,586 1,200	64 4.644 800			
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	40 3,132 560 375	64 6,586 1,200 880	64 4.644 800 550			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	3,132 560 375 55	64 6,586 1,200 880 82	64 4.644 800 550 55			
GAS INFORMATION DEPTH (feet) FOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	40 3,132 560 375	64 6,586 1,200 880 82 156	64 4.644 800 550			
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	3,132 560 375 55	64 6,586 1,200 880 82	64 4.644 800 550 55			

15 10	min / ft min / ft of porosity, evi	AVERAGE	SHOW INTERVAL	10,866' -	10.886'	57
10 and degree	min / ft of porosity, evi		DRILL RATE DUR	10,866' - NG SHOW	· 10,886'	
10 and degree	min / ft of porosity, evi	idence of fra				
and degree	of porosity, evi	idence of fra			7	min / ft
		idence of fra				
		dence of fra				
y 10% bl	_	201100 01 112	cturing, fluore	scence. cuts )		
	<u>.k</u>					
					_	
ky vhd c	rpxln occ	suc are	en.			
<del></del>	<del></del>					
+ cledy	ara waala					
.c sisuy	ary veare					
	· · · · · · · · · · · · · · · · · · ·				<del></del>	
-hd vdol	o grdg to	varg DC	LO sleade			
BLUE MKY	CUT W TR	STM THE	OUGHOUT S	MPL		
			·		<del></del>	
			<del></del>			
5 <b>4'</b> 10	,868'	10,872	10,878'	10,882'	10,884'	10,886
30	116	92	192	88	140	88
i					•	
96 8	640	7,452	13,608	6,653	9,072	7,236
	,640 .440		13,608 2,640	6,653 1,115	9,072 1,520	7,236
00 1	,440	1,200	2,640	1,115	1,520	1,160
96	, <b>44</b> 0 792	792	2,640 1,628	1,115 742	1,520	1,160 726
96 77	,440 792 88	792 77	2,640 1,628 220	1,115 742 89	1,520 1,012 121	1,160 726
96	,440 792 88 195	1,200 792 77 187	2,640 1,628 220 437	1,115 742	1,520	1,160 726
96 77	,440 792 88	792 77	2,640 1,628 220	1,115 742 89	1,520 1,012 121	1,160 726
	BLUE MKY	Hand vdolo grdg to BLUE MKY CUT W TR	BLUE MKY CUT W TR STM THE	Head of the state	BLUE MKY CUT W TR STM THROUGHOUT SMPL  54' 10,868' 10,872' 10,878' 10,882'	BLUE MKY CUT W TR STM THROUGHOUT SMPL  54' 10,868' 10,872' 10,878' 10,882' 10,884'

GREEN RIV	TETR		DEPT	H OF SHOW INTERVA	109421	- 10952'	•
				AGE DRILL RATE DUP			7
VERAGE DRILL RATE AFTER SHOW	v	6.5 min/					<b>7</b> min / ft
		11.5 min/	ft				
AMPI F DESCRIPTION / III	balaan maa aar	do anno a di monno!					
SAMPLE DESCRIPTION (III			ty, evidence of	rracturing, nuori	escence. curs	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
SH 40% dkgy 2	0% blk 40%	brn					
			· · · · · · · · · · · · · · · · · · ·				
LS 40% lt-dkb	rn tn sl tr	nsl v foss	ip abnt	shell frags	occ w/o	ol & pell	crp-vf x
gran/s	uc ip ang b	lky v hd b	rit occ w	/dk brn stn	dul yel	-yelbrn fl	or & slo
strmg	yel cut						
	·						
FST YELBL STR	MG CUT IN S	PL					
			<del></del>		·		······
CAS INFORMATION							
	100421	100461	100521		· · · · · · · · · · · · · · · · · · ·		
DEPTH (feet)	109421	10946'	10952*				
DEPTH (feet) FOTAL (units)	120	212	180				
DEPTH (feet) FOTAL (units) C1 (ppm)	120 8964	212 17712	180 14256				
DEPTH (feet) FOTAL (units) C1 (ppm) C2 (ppm)	120 8964 1560	212 17712 2760	180 14256 2560				
DEPTH (feet) FOTAL (units) C1 (ppm)	120 8964	212 17712	180 14256				
DEPTH (feet) FOTAL (units) C1 (ppm) C2 (ppm)	120 8964 1560	212 17712 2760	180 14256 2560				
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	120 8964 1560 1056	212 17712 2760 1672	180 14256 2560 1782				
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	120 8964 1560 1056 110	212 17712 2760 1672 193	180 14256 2560 1782 765				

average drill rate during show  3 - 4 min / ft  ce of fracturing, fluorescence, cuts)  v slty/sft m-v calc lmy  uc/gran ip v hd brit  fri-m hd dol/calc cmt occ dkbrn intgran s  KER - POOR SPLS - GAS BUSTER TURNED ON	ERAGE DRILL RATE BEFORE SHO	VER		DEPT	HOF SHOW INTERVA	11082	- 11098'	
v slty/sft m-v calc lmy  uc/gran ip v hd brit  fri-m hd dol/calc cmt occ dkbrn intgran s  KER - POOR SPLS - GAS BUSTER TURNED ON			7 - 8 <sub>min</sub>	AVER.	AGE DRILL RATE DUR		<del></del>	4min i ft
v slty/sft m-v calc lmy uc/gran ip v hd brit fri-m hd dol/calc cmt occ dkbrn intgran s KER - POOR SPLS - GAS BUSTER TURNED ON	VERAGE DRILL RATE AFTER SHOW	v			<del>, , ,</del>	<del></del>	<u> </u>	<del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del>
v slty/sft m-v calc lmy uc/gran ip v hd brit fri-m hd dol/calc cmt occ dkbrn intgran s KER - POOR SPLS - GAS BUSTER TURNED ON			8 min	/ Tţ				
v slty/sft m-v calc lmy uc/gran ip v hd brit fri-m hd dol/calc cmt occ dkbrn intgran s KER - POOR SPLS - GAS BUSTER TURNED ON	AMPLE DESCRIPTION (lit	hology, type and	dearee of paras	itv. evidence of	fracturing, fluore	escence, cuts )		
nc/gran ip v hd brit  fri-m hd dol/calc cmt occ dkbrn intgran s  KER - POOR SPLS - GAS BUSTER TURNED ON	SH 10% rd 10% ltd							
nc/gran ip v hd brit  fri-m hd dol/calc cmt occ dkbrn intgran s  KER - POOR SPLS - GAS BUSTER TURNED ON	DI 100 IU 100 IU	gy 100 digy	JOS DIK I	O# DIII				
nc/gran ip v hd brit  fri-m hd dol/calc cmt occ dkbrn intgran s  KER - POOR SPLS - GAS BUSTER TURNED ON	70% SH m-dkgy bll	k avbrn blk	v-irea m b	d occ v sl	ty/sft m-v	calc lmv		,, <u>, , , , , , , , , , , , , , , , , , </u>
Fri-m hd dol/calc cmt occ dkbrn intgran s  KER - POOR SPLS - GAS BUSTER TURNED ON	700 Dir in ditgy Di	k gybin bik	y Treg m n	<u> </u>	LY/SIC M-V	care my		
Fri-m hd dol/calc cmt occ dkbrn intgran s  KER - POOR SPLS - GAS BUSTER TURNED ON	200 per 1 1 11							
	20% DOL trnsl 1to	gybrn mlky-	sng crp-vf	xln suc/g	ran ip v ho	d brit		
KER - POOR SPLS - GAS BUSTER TURNED ON						· · · · · · · · · · · · · · · · · · ·		
	10% SS trnsl clr	vf-f gr an	g-sbang m-	p srt fri-	m hd dol/ca	alc cmt occ	dkbrn in	tgran s
							·	
5' 11090' 11096' 11100'	VERY STRONG FLOW	OF DK BRN/	BLK OIL OV	ER SHAKER	- POOR SPL	S - GAS BUS	TER TURNE	D ON
5' 11090' 11096' 11100'	AT 11086' WITH 1	0' - 20' FL	ARE				•	
5' 11090' 11096' 11100'						<u> </u>		
5' 11090' 11096' 11100'				· · · · · · · · · · · · · · · · · · ·				
5' 11090' 11096' 11100'				·		·		
5' 11090' 11096' 11100'								
5' 11090' 11096' 11100'						<del> </del>		· · · · · · · · · · · · · · · · · · ·
3 11030 11100	AS INFORMATION		-\ <u>.</u>	-				
5690 2200 1600		110821	11084'	11086	11090'	110961	111001	
	EPTH (feet)	11082'	11084'	11086'				
	DEPTH (feet)	360	4880	880	5680	3200	1600	
	OEPTH (feet) OTAL (units)	360 23760	4880 382320	880 24264	5680 371520	3200 64800	1600 30780	
	DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)	360 23760 4240	4880 382320 70000	880 24264 10320	5680 371520 76800	3200 64800 26400	1600 30780 11200	
	OEPTH (feet)  OTAL (units)  O1 (ppm)  O2 (ppm)  O3 (ppm)	360 23760 4240 2552	4880 382320 70000 45320	880 24264 10320 6248	5680 371520 76800 53680	3200 64800 26400 32120	1600 30780 11200 12100	
	DEPTH (feet)  OTAL (units)  O1 (ppm)  O2 (ppm)  O3 (ppm)  O4 (ppm)	360 23760 4240 2552 385	4880 382320 70000 45320 6600	880 24264 10320 6248 1100	5680 371520 76800 53680 8800	3200 64800 26400 32120 7150	1600 30780 11200 12100 1650	
0 23400 17160 6240	CAS INFORMATION DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	360 23760 4240 2552	4880 382320 70000 45320 6600 19500	880 24264 10320 6248	5680 371520 76800 53680 8800 23400	3200 64800 26400 32120 7150	1600 30780 11200 12100 1650	
0 23400 17160 6240 5320	DEPTH (feet)  OTAL (units)  O1 (ppm)  O2 (ppm)  O3 (ppm)  O4 (ppm)	360 23760 4240 2552 385	4880 382320 70000 45320 6600 19500 4520	880 24264 10320 6248 1100	5680 371520 76800 53680 8800 23400 5320	3200 64800 26400 32120 7150	1600 30780 11200 12100 1650	
4     371520     64800       0     76800     26400			<del>-1, , , , , , , , , , , , , , , , , , , </del>				<del></del>	
1 9900 171EA   16EA	PTH (feet)  TAL (units)  (ppm)  (ppm)	360 23760 4240 2552	4880 382320 70000 45320	880 24264 10320 6248	5680 371520 76800 53680	3200 64800 26400 32120	1600 30780 11200 12100	
	EPTH (feet)  DTAL (units)  1 (ppm)  2 (ppm)  3 (ppm)	360 23760 4240 2552 385	4880 382320 70000 45320 6600	880 24264 10320 6248 1100	5680 371520 76800 53680 8800	3200 64800 26400 32120 7150	1600 30780 11200 12100 1650	
0 23400 17160 6240	EPTH (feet)  OTAL (units)  1 (ppm)  2 (ppm)  3 (ppm)  4 (ppm)  C4 (ppm)	360 23760 4240 2552 385	4880 382320 70000 45320 6600 19500	880 24264 10320 6248 1100	5680 371520 76800 53680 8800 23400	3200 64800 26400 32120 7150	1600 30780 11200 12100 1650	
0 23400 17160 6240	EPTH (feet)  OTAL (units)  1 (ppm)  2 (ppm)  3 (ppm)  C4 (ppm)	360 23760 4240 2552 385	4880 382320 70000 45320 6600 19500	880 24264 10320 6248 1100	5680 371520 76800 53680 8800 23400 5320	3200 64800 26400 32120 7150	1600 30780 11200 12100 1650	

	WELL NAME	4-15A2 SUN	DANCE			SHOW REPORT #	60
GREEN RIVE	R		DEPTH	CF SHOW INTERVAL	11172' -	- 11224'	
AVERAGE DRILL RATE BEFORE SHOW	N	8.5 min /		GE DRILL RATE DURII	NG SHOW	7.	5 min / ft
AVERAGE DRILL RATE AFTER SHOW		10.5 min/	ft				,
SAMPLE DESCRIPTION (little 70% SH 80% rd 1	ology, type and o		ty, evidence of f	racturing, fluores	scence, cuts )		
30% SS clr mlky	wh vf-m ar	pred uncon	s occ fri	p cmt w rd	d-sbrd p :	ert clr fl	tt sl calc
	cl occ dk h						
SH rd dkgy blky	sft-m hd rt	hy calc mr	ly occ mot	t w/lt gy	sh dolic	ip occ xln	tex/brit
GOING THROUGH GA	S BUSTER -	DECR OIL C	VER SHAKE	R THROUGH I	NTERVAL -	NO FLARE	
immed yelbl mlky	cut w/wk	strm in tot	al spl				
GAS INFORMATION							
	11172'	11180'	11192'	11196'	11218'	11220'	11224'
DEPTH (feet)	11172' 720	11180'	11192' 920	11196' 1920	11218'	11220' 600	11224 <b>'</b> 280
OEPTH (feet)	11172' 720 20872	2000	920	1920	240	600	280
DEPTH (feet) OTAL (units) OTAL (ppm)	720	2000 88212		1920 85050		600 29160	280 12783
DEPTH (feet) OTAL (units) 11 (ppm) 12 (ppm)	720 20872	2000	920 40753	1920	240 12960	600	280
EPTH (feet) OTAL (units) 1 (ppm) 2 (ppm) 3 (ppm)	720 20872 6035	2000 88212 13571	920 40753 5200	1920 85050 10852	240 12960 2400	600 29160 2823	280 12783 1317
DEPTH (feet)  OTAL (units)  1 (ppm)  2 (ppm)  3 (ppm)  04 (ppm)	720 20872 6035 4680	2000 88212 13571 13000	920 40753 5200 5060	1920 85050 10852 9665	240 12960 2400 559	600 29160 2823 1398	280 12783 1317 652
OEPTH (feet) OTAL (units) O1 (ppm) O2 (ppm) O3 (ppm) O4 (ppm)	720 20872 6035 4680 742	2000 88212 13571 13000 2600	920 40753 5200 5060 904	1920 85050 10852 9665 1790	240 12960 2400 559 119	600 29160 2823 1398 297	280 12783 1317 652 109
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)	720 20872 6035 4680 742	2000 88212 13571 13000 2600 7800 1280	920 40753 5200 5060 904 2563 200	1920 85050 10852 9665 1790 5076	240 12960 2400 559 119 374 -480	600 29160 2823 1398 297 935 -120	280 12783 1317 652 109 412 -440
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	720 20872 6035 4680 742 2186	2000 88212 13571 13000 2600 7800 1280 2.8	920 40753 5200 5060 904 2563 200 1.3	1920 85050 10852 9665 1790 5076 1200 2.7	240 12960 2400 559 119 374	600 29160 2823 1398 297 935	280 12783 1317 652 109 412
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	720 20872 6035 4680 742 2186	2000 88212 13571 13000 2600 7800 1280 2.8	920 40753 5200 5060 904 2563 200 1.3	1920 85050 10852 9665 1790 5076 1200 2.7	240 12960 2400 559 119 374 -480	600 29160 2823 1398 297 935 -120	280 12783 1317 652 109 412 -440
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	720 20872 6035 4680 742 2186	2000 88212 13571 13000 2600 7800 1280 2.8	920 40753 5200 5060 904 2563 200 1.3	1920 85050 10852 9665 1790 5076 1200 2.7	240 12960 2400 559 119 374 -480	600 29160 2823 1398 297 935 -120	280 12783 1317 652 109 412 -440
	720 20872 6035 4680 742 2186 torquing of bit, s	2000 88212 13571 13000 2600 7800 1280 2.8	920 40753 5200 5060 904 2563 200 1.3	1920 85050 10852 9665 1790 5076 1200 2.7	240 12960 2400 559 119 374 -480	600 29160 2823 1398 297 935 -120	280 12783 1317 652 109 412 -440
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	720 20872 6035 4680 742 2186 torquing of bit, s	2000 88212 13571 13000 2600 7800 1280 2.8	920 40753 5200 5060 904 2563 200 1.3	1920 85050 10852 9665 1790 5076 1200 2.7	240 12960 2400 559 119 374 -480	600 29160 2823 1398 297 935 -120	280 12783 1317 652 109 412 -440

DPMATION WASATCH		4-13A2 50	INDANCE	SHOW INTERVAL	<del></del>		61
	A.	<del></del>				- 11336'	
ERAGE DRILL RATE BEFORE SHO		8 min /		DRILL RATE DURIN	G SHOW		5 min / ft
ERAGE DRILL RATE AFTER SHOW		5 min /	ft				
MPLE DESCRIPTION (little	nology, type and o	degree of porosi	ty, evidence of fra	cturing, fluores	cence. cuts )		
80% SH 10% rd 2	20% ltgy 30%	adkgy 20%	blk 20% br	1		<del></del>	
20% SS wh trnsl	clr vf-f g	r w rdd-and	g m-p srt pi	red lse/und	cons occ	fri p cmt	calc
gd intgra	n Ø occ dk	brn stn				<u>.</u>	
	,						
wk yelbl overall	cut with	lt yel rind	flor	<del>,</del>			
	· · · · · · · · · · · · · · · · · · ·	<del></del>					
ADMI DE VIII DON I	NADARIN OTT	OTHER CHAIR					
ABNT DK YELBRN I	AKAFIN UIL	UVER SHAK	<u>sk</u>			<del></del>	
	*****						
							······································
AS INFORMATION							
	11322'	11328'	11336'				
EPTH (feet)	11322° 360	11328' 5200	11336' 4880				
EPTH (feet)		<del></del>					
EPTH (feet)  DTAL (units)  1 (ppm)	360	5200	4880				
EPTH (feet) OTAL (units) 1 (ppm) 2 (ppm)	360 24720	5200 148800	4880 110400				
EPTH (feet)  OTAL (units)  1 (ppm)  2 (ppm)  3 (ppm)	360 24720 4268	5200 148800 55440 53600	4880 110400 50160 46000				
EPTH (feet) OTAL (units) 1 (ppm) 2 (ppm) 3 (ppm) C4 (ppm)	360 24720 4268 1375 192	5200 148800 55440 53600 9920	4880 110400 50160 46000 8960				
EPTH (feet)  OTAL (units)  1 (ppm)  2 (ppm)  3 (ppm)  C4 (ppm)	360 24720 4268 1375	5200 148800 55440 53600 9920 24300	4880 110400 50160 46000				
EPTH (feet)  DTAL (units)  1 (ppm)  2 (ppm)  3 (ppm)	360 24720 4268 1375 192	5200 148800 55440 53600 9920	4880 110400 50160 46000 8960				

11/3/91	WELL NAME		<del></del>			SHOW REPORT	#
FORMATION	4	-15A2 SUND		CF SHOW INTERV	ΔI		62
WASATCH		<del> </del>			1139	8' - 11408'	
VERAGE DRILL RATE BEFORE SHOW	v 	13 min/		GE DRILL RATE DL	RING SHOW		.7 min / ft
VERAGE DRILL RATE AFTER SHOW		9 min /	ft				
					· <del></del>		
SAMPLE DESCRIPTION (11th	ology, type and d	legree of porosit	y, evidence of f	racturing, fluo	rescence, cui	ts)	
60% SH 50% rd 20	% dkgy 20%	blk 10% br	'n		· · · · · · · · · · · · · · · · · · ·		
30% SS clr wh od	d rd f-m gr	ang-sbang	m-w srt	fri-p cons	m-p cmt	calc pred o	ln occ w/
dk intgra	n stn		_	!			
wk diff yelbl cu	t						
ABNT DK PARAFIN	OIL OVER SH	IAKER	•				
				·	.,		
DOCCIDI V. ONICO	DV DTH/mmr-	THO THUT	TN DOGG	4 DDTTT -	31 11/4mr32 m-	NO MILL PROP	DMTPC
POSSIBLY CAUSED			IN POSSUI	и вкилу, ј	LUCTUATI	NG MUD PROPI	SRTIES
AND PARAFIN CLOG	S IN AGITAT	OR					
GAS INFORMATION							
	11398'	11404'	11410'				
DEPTH (feet)	11398 <b>'</b>	11404 <b>'</b> 4560	11410' 3840				
DEPTH (feet)			1				
DEPTH (feet) TOTAL (units) C1 (opm)	280	4560	3840				
GAS INFORMATION DEPTH (feet) FOTAL (units) C1 (opm) C2 (ppm)	280 8160	4560 452500	3840 56760				
DEPTH (feet)  FOTAL (units)  C1 (opm)  C2 (ppm)  C3 (ppm)	280 8160 1584	4560 452500 86240	3840 56760 56760				
DEPTH (feet)  TOTAL (units)  C1 (opm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	280 8160 1584 2050	4560 452500 86240 49000 6432	3840 56760 56760 39000 5760				
DEPTH (feet)  TOTAL (units)  C1 (opm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	280 8160 1584 2050 512	4560 452500 86240 49000 6432 15750	3840 56760 56760 39000				
DEPTH (feet)  TOTAL (units)  C1 (opm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)	280 8160 1584 2050 512	4560 452500 86240 49000 6432 15750 4280	3840 56760 56760 39000 5760				
DEPTH (feet)  TOTAL (units)  C1 (opm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)	280 8160 1584 2050 512	4560 452500 86240 49000 6432 15750	3840 56760 56760 39000 5760				
DEPTH (feet)  TOTAL (units)  C1 (opm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	280 8160 1584 2050 512 1485	4560 452500 86240 49000 6432 15750 4280 16.3	3840 56760 56760 39000 5760 13500				
DEPTH (feet)  TOTAL (units)  C1 (opm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	280 8160 1584 2050 512 1485	4560 452500 86240 49000 6432 15750 4280 16.3	3840 56760 56760 39000 5760 13500				
DEPTH (feet)  TOTAL (units)  C1 (opm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	280 8160 1584 2050 512 1485	4560 452500 86240 49000 6432 15750 4280 16.3	3840 56760 56760 39000 5760 13500	in mud system			
DEPTH (feet)  FOTAL (units)  C1 (opm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	280 8160 1584 2050 512 1485	4560 452500 86240 49000 6432 15750 4280 16.3	3840 56760 56760 39000 5760 13500	in mud system			
DEPTH (feet)  FOTAL (units)  C1 (opm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	280 8160 1584 2050 512 1485	4560 452500 86240 49000 6432 15750 4280 16.3	3840 56760 56760 39000 5760 13500	in mud system			
DEPTH (feet)  FOTAL (units)  C1 (opm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  DTHER COMMENTS (e.g  DRILLING WITH 36	280 8160 1584 2050 512 1485	4560 452500 86240 49000 6432 15750 4280 16.3	3840 56760 56760 39000 5760 13500	in mud system			
DEPTH (feet)  FOTAL (units)  C1 (opm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  DTHER COMMENTS (e.g  DRILLING WITH 36	280 8160 1584 2050 512 1485	4560 452500 86240 49000 6432 15750 4280 16.3	3840 56760 56760 39000 5760 13500	in mud system			

FORM 25 - 767 (1)		SH	IOW REPOP	RT		ut Ç	
11/4/91	WELL NAME	4-15A2 SUND	ANCE			SHOW REPORT #	63
ORMATION WASATCH		~ <del></del>	DEPTH O	F SHOW INTERVAL	11564'	- 11574'	
AVERAGE DRILL RATE BEFORE SHOW	· —	8 min / f	AVERAGE	DRILL RATE DURI			min / ft
AVERAGE DRILL RATE AFTER SHOW		·····					111111711
		10 min/f	t				
SAMPLE DESCRIPTION (lithe	ology, type and d	egree of porosity	, evidence of fra	cturing, fluore	scence, cuts)		
90% SH 40% rd 20%		<del></del>				_ <del>_</del>	
<del></del>					<del></del>		
SH rd mar purp sb	blky-ireg :	sft-m hd sl	-v calc v	sdy-abnt 1	n-w rdd qt	tz grn incl	slty gt
					<del></del>		
10% SS rd mar clr	f-m or w	rdd o srt. f	ri w cmt a	ra mtrx NI	SOC		
	<del></del>	<u> </u>	. <u></u> <u></u>				
slight incr dk oi	l over shal	ker					<del></del> -
<del></del>							
···				-			
		<del></del>	<u> </u>				
					<del></del>		
		- <u> </u>				<del></del>	
GAS INFORMATION		<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del>	i		Γ
DEPTH (feet)	11564'	11568'	11580'				
TOTAL (units)	310	4320	320	!			
C1 (ppm)	12636	321840	27216		!		
C2 (ppm)	1216	28500	1976				
C3 (ppm)	743	8325	945	<del></del>			
IC4 (ppm)	240	1500	180				
NC4 (ppm)	680	3400	510				
NET INCREASE (units)		4010					
RATIO (Pk:BG)		13.9		i			
			e.	!			
OTHER COMMENTS (e.g t	torquing of bit, sp	oikey drill time or	gas, changes in	mud system)		·····	
NO TORQUE DRILLING	WITH MOD	WT-11.3 IN	11.1+ OUT	GAS AND	OIL PROBA	BLY RELEASEI	FROM
UPHOLE SHOW DURING	SLOW DRILL	ING					
CODDEL ATION W / CONTROL	WELL (C)			1			
CORRELATION W / CONTROL	MELL(2)	·		:			

WASATCH VERAGE DRILL RATE BEFORE SHO	w		AVERA	GE DRILL RATE DURIN	11,596' -	11,022
VERAGE DRILL RATE AFTER SHOW	I	13 min / 1				<b>7–8</b> min / ft
TO THE STREET OF THE STREET		8 min / 1	ft	ı		
AMDIE DECORIDATION / HA	h-1					
AMPLE DESCRIPTION (III	-			<del></del>	cence, cuts)	
80% SH 30% rd 10	)% purp 10%	ltgy 30% d	kgy 20% br	n		
CV	C. 1.1					
SH vqt sbblky-ire	eg frm-mhd	occ vsdy -	abnt f-mgr	wrdd qtz	incl slty	sl-vcalc occ lmy
20% SS clr ltgy t	rnel vf-fo	r ang-shang	m-wert fr	i_mhd_n_mor		a dk hrn atn
w/wk yel bl s		r any-spany	III-WSIC II	T-mid p-mc	ut care oc	e dk brii stii
w/ wk yel bi s	scm cut	<del> </del>				
SL INCR BRN PARAM	TN OTT OWN	D CHYALD				
SL INCK BRN PARAF	IN OIL OVE	K SHAKEK				
		·				77 100 000 000 000
		· · · · · · · · · · · · · · · · · · ·		<del></del>		
				<del>-</del>		
AS INFORMATION		· · · · · · · · · · · · · · · · · · ·	<del>, _</del>	<del>,                                      </del>		
DEPTH (feet)	11,596'	11,598'	11,602'	11,610'	11,622'	
OTAL (units)	380	3,040	1,760	3,680	760	
01 (ppm)	27,948	117,504	99,360	123,120	19,008	
22 (ppm)	2,394	39,520	19,760	36,480	3,040	
C3 (ppm)	832	21,780	9,900	25,200	3,240	
C4 (ppm)	553	7,480	2,890	10,880	2,244	
IC4 (ppm)		2,660	1,400	3,320	400	
NET INCREASE (units)		8	4.9	10.2	2.1	
RATIO (Pk:BG)						
<u> </u>			1	-	·····	
THER COMMENTS (e.g	torquing of bit, s	pikey drill time o	r gas, changes i	n mud system)	•	
NO TO DRILLING V	7/MUD 11.4	IN 11.4 out	w/IN	ERMITTANT	10' FLARE	
22 bbl. mud incr						
	L WELL (S)					
CORRELATION W/CONTRO				<del></del>		
CORRELATION W / CONTRO						

					· .		
11/5/91	WELL NAME	4-15A2	SUNDANC	E		SHOW REPORT #	66
FORMATION WASATCH			DEF	TH OF SHOW INTERVA	11622' -	- 11650 <b>'</b>	
AVERAGE DRILL RATE BEFORE SHOW	N	8 min /		RAGE DRILL RATE DU	RING SHOW	9 - 6	min / ft
AVERAGE DRILL RATE AFTER SHOW		9.5 min/					
SAMPLE DESCRIPTION (11th	ology, type and o	legree of porosi	ty, evidence d	of fracturing, fluor	escence, cuts)		
70% SH 30% rd 1	0% gn 40% 1	tgy 10% dk	gy 10% b	1k			
		· · · · · · · · · · · · · · · · · · ·					
SH rd ltgy vgt	blky-sbblky	sft-m hd/	brit occ	suc tex sl	ty/sdy calc	rthy lmy i	p .
30% SS clr mlky	trnsl vf-f	gr sbang-	sbrd m s	rt pred unce	ons occ fri	i calc w/tr	brn stn
		<u> </u>		ro prod dio	JALO 000 111	court wy cu	DIN BUI
immed poor yelb	l diff cut	w/tr strm	thru spl	1			
	1 4111 040	w/ CI SCIM	CILU SPI				
mod amt dk gnbr	n naragin o	il over ch	nkor			· · · · · · · · · · · · · · · · · · ·	
mod diff dk glibi	n paragin c	TI OVEL SII	aker				
· · ·							
		<del></del>					
	<del></del>			<del></del>			
GAS INFORMATION							
DEPTH (feet)	11622'	11624'	11626'	11638'	11650'		
							, <u>,</u>
TOTAL (units)	760	4000	2960	4640	2320		
C1 (ppm)	19008	358560	129232		75168		
C2 (ppm)	3640	24320	19146	29911	18891		
C3 (ppm)	3240	15300	10656	15846	11931		
IC4 (ppm)	768	3840	2642	4226	2287		
NC4 (ppm)	2244	8670	6424	9332	5071		
NET INCREASE-(units)	, ,	3240	2200	3880	1560		
RATIO (Pk:BG)		4.3	3.9	6.1	3.1		
OTHER COMMENTS (e.g	torquing of bit, s	pikey drill time o	or gas, chang	es in mud system	) 		
NO TORQUE DRILL	ING WITH MU	JD 11.4 IN	11.0+	OUT			
CORRELATION W/CONTRO	1 WELL (C)						
CORRELATION W / CONTRO	L WELL(3)	····					
						<del> </del>	<u></u>
							<del> </del>
DECOMMENDED PACKER SI	EAT						

11/7/91	WELL NAME	4-15A2 SUN	DANCE			SHOW REPORT #	67
FORMATION WASATCH			DEPTH (	F SHOW INTERVAL	11650' -	11700'	
AVERAGE DRILL RATE BEFORE SHOW	٧	9.5 <sub>min / f</sub>	t AVERAG	E DRILL RATE DUR	ING SHOW	12.	5 <sub>min / ft</sub>
AVERAGE DRILL RATE AFTER SHOW		20 min / f					
SAMPLE DESCRIPTION (lith	ology, type and d	egree of porosit	y, evidence of fr	acturing, fluore	scence, cuts)		
95% SH 60% rd 1	0% gn 30% c	lkgy					
SH rd mar sbblk	y-ireg hd-c	occ sft v s	lty abnt S	S incl oc	c SS intbd:	s loc w/thn	LS intbd
m-v calc gro	ig to sltst						
							· · · · · · · · · · · · · · · · · · ·
SH vgt sbblky-i	ireg frm-m h	nd occ sl s	sft v sdy/s	lty abnt	SS strgrs o	occ thn DOL	intbds
w/micr pyr i	incl m-v cal	lc ip					
5% SS clr trns	rd purp vi	-occ m gr	ang -w rdd	l v p srt	v arg/sltv	calc clv m	trx fri-
	lse NFSOC	<u> </u>	<u></u>	<u> </u>	. 123, 5252	OGLO OLY III	100.00
v wk yelbl diff	f cut in sol	s moc amt	dk brnan	narafin o	il over sh	akor	
INTMT 3-10' FLA			. uk Driigii	pararri	II OVEL SIN	ZRCI	
THIRT 5 TO THE	Hai Timo Bol	<u>, , , , , , , , , , , , , , , , , , , </u>					
GAS INFORMATION			,				
DEPTH (feet)	11650'	11652'	11658'	11668'	11688'	11696'	11700'
TOTAL (units)	2320	2720	2240 ,	2960	1800	3280	540
C1 (ppm)	75168	87480	96366	145152	84390	196300	18144
C2 (ppm)	18891	22800	24320	20672	14900	28346	2660
C3 (ppm)	11931	14400	16200	13680	9160	17640	2385
IC4 (ppm)	2287	2800	2940	2880	1725	3160	640
NC4 (ppm)	5071	5780	6376	6800	4240	7695	1530
NET INCREASE (units)		400	-80	640	-520	960	-1780
RATIO (Pk:BG)		1.2	.96	1.3	.8	1.4	.23
OTHER COMMENTS (e.g	torquing of bit, sp	oikey drill time o	gas, changes i	n mud system)	•		
NO TORQUE DRILL	ING WITH MUI	0 11660' -	- 11.4/11.0	)+ @11680	' - 11.4+/	11.2+	
	·	<b>@11700' -</b>	11.1+/11	1+			
CORRELATION W / CONTRO	L WELL(S)					· · · · · · · · · · · · · · · · · · ·	
		<u> </u>					
RECOMMENDED PACKER S	EAT						

DATE 11/7/91	WELL NAME	4-15A2 S	UNDANCE			SHOW REPORT #	68
FORMATION	АТСН	<del></del>		OF SHOW INTERVA	11704	- 11778'	
AVERAGE DRILL RATE BEFORE SHOW	Y	11 min/	AVER.	AGE DRILL RATE DUR			min / ft
AVERAGE DRILL RATE AFTER SHOW		17 min/		i			
		27 111117			······································	,	
SAMPLE DESCRIPTION (lith	ology, type and o	legree of porosit	y, evidence of	fracturing, fluore	scence, cuts)		
80% SH 40% rd 1	0% gn 10% d	ikgy 5% ltg	y 10% blk	25% brn			
		····					
SH gn plty occ	blky frm-v	wxy slty s	dy occ mo	tt w/rd sh	sl calc ab	ont SS incl	· ·
SH rdbrn rdorng	mott sbbll	xy-ireg frm	-m hd v s	lty abnt f-	m gr SS in	cl m-v cal	с
20% SS clr rd t	rnsl mar v	E-occ m gr	sbrd-ang	m-v p srt v	arg/slty	calc occ c	lr w/dk b
stn & wk	yelbl str	n cut			····		
							<del></del> _
mod-tr brngn pa	rafin oil d	over shaker	decr thr	u area			
wk diff yelbl c	ut w/slo st	rm in spls		-			
INTMT 4-6' FLAR	E FROM 1175	55' <b>-</b> 11772	•				
				:			
		<u> </u>					
GAS INFORMATION			1		<del>1</del>		1
DEPTH (feet)	11704'	11714'	11734'	11748'	11756'	11774'	11778'
TOTAL (units)	600	2560	3840	4400	2880	3600	400
C1 (ppm)	17280	154656	190080	164057	107382	164320	9612
C2 (ppm)	2660	13984	24320	25824	16937	22900	1292
C3 (ppm)	2585	7560	11700	14143	9257	14400	990
iC4 (ppm)	640	2040	2640	2043	1337	2210	246
NC4 (ppm)	1530	5700	6120	4786	3132	5365	638
NET INCREASE (units)		1960	3240	3800	2280	3000	-200
RATIO (Pk:BG)		4.3	6.4	7.3	4.8	6.0	.7
OTHER COMMENTS (e.g			<del></del>				
		MITTO 811720	' - 11.4+	/11.1+ 011	<u> 1740' - 11.</u>	4/11.0	
NO TORQUE DRI	LLING WITH	HOD CII/20					
NO TORQUE DRI	LLING WITH		- 11.3/	10.8 @11	1780' - 11.	4/11.2	
				10.8 @11	1780' - 11.	4/11.2	
NO TORQUE DRI				10.8 @11	1780' - 11.	4/11.2	
				10.8 @11	1780' - 11.	4/11.2	

11/7/91 FORMATION WASATCH EVERAGE DRILL RATE BEFORE SHOW EVERAGE DRILL RATE AFTER SHOW  SAMPLE DESCRIPTION (lithor 80% SH 60% rd 15%  SH gn sbblky-sbpl	gn 10% dkg		t AVERAGE t	OF SHOW INTERVAL	<u> 11800' - </u>		69 min / ft
EVERAGE DRILL RATE BEFORE SHOW  EVERAGE DRILL RATE AFTER SHOW  SAMPLE DESCRIPTION (lithors 15%)	gn 10% dkg	7 • 5min / f	t y, evidence of f	i			min / ft
SAMPLE DESCRIPTION (litho	gn 10% dkg	7 • 5min / f	t y, evidence of f			10	HIIII / IL
80% SH 60% rd 15%	gn 10% dkg	egree of porosity	y, evidence of f				
80% SH 60% rd 15%	gn 10% dkg					,	
		y 10% blk	5% brn	racturing, fluores	scence, cuts)		
SH gn sbblky-sbpl	tv frm sbwx						
		v v sdv w/	abnt m gr	atz incl c	occ w/thn s	s strars ma	
SH rd blk-sbplty						<del></del>	
		bay wyocc	m 91 # 10	a des met	SI Care It	JIY OCC MIC	. pyr inc.
20% SS clr m-vf g	r shang m s	rt calc ar	a fri-m f	rm mod ad i	ntaran M		
	L SDairy III S	ic care ar	9 111 11 1.	in mod ga i	intgrain p		
v wk diff yelbl c	nt w/tr etr	m in enl		······································	<del></del>		
trace parafin oil			7000	<u></u>			
INTMT 5-10' FLARE	THRU ZONE	W/STEADY 6	FLARE A	r 11828' -	11833'		
				!			
GAS INFORMATION				1			
DEPTH (feet)	11800'	11808'	11816'	11824'	11826'	11836'	
FOTAL (units)	600	3680	2720	3760	3360	560	
C1 (ppm)	19008	176256	106500	120960	95040	10152	
C2 (ppm)	1672	23408	14936	24016	22192	1824	
	1125	8460	4560	14220	14400	1440	
C3 (ppm)	300	1740	1045	2340	2880	600	
C4 (ppm)	850						<u></u>
NC4 (ppm)	830	4080	2890	5270	5780	1190	
NET INCREASE (units)		3080	2120	3160	2760	-40	
RATIO (Pk:BG)		6.1	4.5	6.3	5.6	.93	·
OTHER COMMENTS (e.g to	oravina of hit sn	likev drili time or	rase channas	in mud svetam )			
NO TORQUE DRILLING					- 11.4/11.	^	
NO TORQUE DITIMING	WIII MOD	<u>e11020</u> -	11.3/11.0	611040	<u>- 11.4/11.</u>		
CORRELATION W / CONTROL	.WELL(S)			2			
		. "					
				:	-,	<u>-</u>	

DATE 11/7/01	WELL NAME	4 1530				SHOW REPORT #	70
11/7/91 ORMATION		4-15A2 SU		OF SHOW INTERVAL			70
WASATCH AVERAGE DRILL RATE BEFORE SHOW	v			GE DRILL RATE DURIN		- 11890 <b>'</b>	
	10-	•15 min / f				20-37	min / ft
AVERAGE DRILL RATE AFTER SHOW	18-	-30 min / f	t				
				ı			
SAMPLE DESCRIPTION (lith	ology, type and d	egree of porosity	y, evidence of	fracturing, fluores	cence, cuts)		
60% SH 70% rd 10	)% gn 10% dk	gy 10% blk			<del></del>		
SH rd sbblky-ire	eg m hd-sl s	ft <b>v</b> slty	m-v calc	abnt sdy in	cl		
	, "						
40% SS clr trns	l mlkv vf-m	gr ang-w r	dd m-v p	srt pred ls	e n-w cmt	v arg/sltv	in w/
cly mtrx		3	THE P	ore pred in	c p w cmc	v arg, srcy	<u> </u>
CTY MCIX	occ care				<del>****</del>		
.d. aice 22.2				:			
wk diff yelbl cu	<del></del>	<del></del>					
tr dk parafin o	il over shak	er					
INTMT 1-5' FLARI	3						
					·····		
GAS INFORMATION			*		- Marin		
	11868'	11872'	11888'	11896'			
DEPTH (feet)	11868'	11872' 3920	11888' 4640	11896' 740			
DEPTH (feet)		3920	4640	740			
DEPTH (feet)  FOTAL (units)  C1 (ppm)	300 14580	3920 190512	4640 254880	740 22464			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)	300 14580 1572	3920 190512 20017	4640 254880 30020	740 22464 3040			
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	300 14580 1572 692	3920 190512 20017 9041	4640 254880 30020 15525	740 22464 3040 2250			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	300 14580 1572 692 135	3920 190512 20017 9041 1764	4640 254880 30020 15525 2700	740 22464 3040 2250 480			
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	300 14580 1572 692	3920 190512 20017 9041 1764 4582	4640 254880 30020 15525 2700 5950	740 22464 3040 2250			
DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	300 14580 1572 692 135	3920 190512 20017 9041 1764	4640 254880 30020 15525 2700	740 22464 3040 2250 480			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)	300 14580 1572 692 135	3920 190512 20017 9041 1764 4582	4640 254880 30020 15525 2700 5950	740 22464 3040 2250 480			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  IC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	300 14580 1572 692 135 351	3920 190512 20017 9041 1764 4582 3620 13.1	4640 254880 30020 15525 2700 5950 4340 15.5	740 22464 3040 2250 480 1360			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	300 14580 1572 692 135 351	3920 190512 20017 9041 1764 4582 3620 13.1	4640 254880 30020 15525 2700 5950 4340 15.5	740 22464 3040 2250 480 1360			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	300 14580 1572 692 135 351	3920 190512 20017 9041 1764 4582 3620 13.1	4640 254880 30020 15525 2700 5950 4340 15.5	740 22464 3040 2250 480 1360	0' - 11.3	+/10.0+	
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	300 14580 1572 692 135 351	3920 190512 20017 9041 1764 4582 3620 13.1	4640 254880 30020 15525 2700 5950 4340 15.5	740 22464 3040 2250 480 1360	0' - 11.3	+/10.0+	
	300 14580 1572 692 135 351 torquing of bit, sp	3920 190512 20017 9041 1764 4582 3620 13.1	4640 254880 30020 15525 2700 5950 4340 15.5	740 22464 3040 2250 480 1360	0' - 11.3	+/10.0+	
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  IC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	300 14580 1572 692 135 351 torquing of bit, sp	3920 190512 20017 9041 1764 4582 3620 13.1	4640 254880 30020 15525 2700 5950 4340 15.5	740 22464 3040 2250 480 1360	00' - 11.3	+/10.0+	
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g  NO TORQUE DRILL	300 14580 1572 692 135 351 torquing of bit, sp	3920 190512 20017 9041 1764 4582 3620 13.1	4640 254880 30020 15525 2700 5950 4340 15.5	740 22464 3040 2250 480 1360	00' - 11.3	+/10.0+	

DATE 11/9/91	WELL NAME	-15A2 SUNDA	ANCE			SHOW REPORT #	71
FORMATION				OF SHOW INTERVAL	11910'-	11938'	· · · · · · · · · · · · · · · · · · ·
AVERAGE DRILL RATE BEFORE SHOW		17.5 min/		SE DRILL RATE DURI		14	min / ft
AVERAGE DRILL RATE AFTER SHOW						1.4	111111 / 11
		15.0 min/:	It .				
SAMPLE DESCRIPTION (litho	ology, type and d	learee of porosit	v. evidence of f	acturing, fluores	scence, cuts )		
SH 80%rd,10%lt					, , , , , , , , , , , , , , , , , , , ,		
511 00-114,10-11	ду, гозакду	, cr purp/g.	LII	i		<u>.</u>	
GT . C1 C1							
SH frm-sl sft,n	-si caic,s	ity ip					
				1	····		
80%SS clr-trnsl	-opq,off w	h,fgr,sbrn	d-sbang,oc	c wrnd, wsr	t,wcmt,frm	consol,oco	tr
glauc,tr orng s	pks,V SL T	R MOD BRI	YEL FLOR, N	O STRMG CUT	r,v fnt du	L RES RNG,	no
stn, no vis poro		*	· 				
				!			
					-		
INCR IN DK HVY	OIL OVER S	HKR		1			
6' FL @ 11918'	10'	FL <b>@</b> 11922	' O PT	11940'			
0 11 6 11310	10	LT 6 11322	U FL	6 11340			-
	<del>-</del>				······		
GAS INFORMATION				r I			
DEPTH (feet)	11910'	11918'	11922'	11928	11934'	11938'	11940'
TOTAL (units)	880	4080	4320	4640	4160	2880	800
C1 (ppm)	54000	311040	298080	424000	352000	200110	44010
					-		
C2 (ppm)	12480	62400	73320	73800	53200	22960	7010
C3 (ppm)	10092	31320	39150	40008	32100	17600	5611
IC4 (ppm)	1512	6480	5400	5010	4204	3980	1750
NC4 (ppm)	4680	13260	12792	13507	12070	8997	3301
NET INCREASE ( units )		3200	3440	3760	3280	2000	
RATIO (Pk:BG)		4.6	4.9	5.3	4.7	3.3	
OTHER COMMENTS (e.g to	orquing of bit, sp	oikey drill time o	r gas, changes i	n mud system )			
DRLG W/MUD 1192	O' WT IN/O	UT 11.4+/	10.8				
							-
CORRELATION W / CONTROL	WELL(S)						

# **SHOW REPORT**

8° 37

11/9/91  FORMATION  WAS  AVERAGE DRILL RATE BEFORE SHOW  AVERAGE DRILL RATE AFTER SHOW	WELL NAME	4-15A2 S	UNDANCE:	ļ		SHOW REPORT #	
WAS AVERAGE DRILL RATE BEFORE SHOW							72
	ATCH		DEPTH	OF SHOW INTERVAL	11953' -	- 11968'	
AVERAGE DRILL RATE AFTER SHOW	1	5 min /		SE DRILL RATE DURI	NG SHOW	11.5	min / ft
	1	7 min /	ft	ı			
AMPLE DESCRIPTION (litho	· · · · · · · · · · · · · · · · · · ·	egree of porosit	y, evidence of fr	acturing, fluores	scence, cuts )		
SH rdbrn-ltrdor	ma ltay-ay	arn mod sf	t to frm n	-el calc.e	ltv-occ g	rda	
to arg SLTST		9111,11104 51	C CO IIM/II	<u> </u>	10, 000 y.		
90% SS clr-trns	l-opq,wh-l	tgy,fgr,oc	c mgr,sbrn	d-rnd-sban	g ip,msrt	,m-pcmt,	
50% unco	onsol,fri-f	rm ip,mod	calc,rr gl	auc, tr orn	g spks,DU	L YEL FLOR,	
NO STRMG	CUT, FNT D	UL MLKY PO	OL, V FNT R	ES RNG, no	vis stn,t	r intgrnlr	
poro, mod	l amnt free	wh cly, mo	d cly fil	cmt			
			·	!			
5'-6- FLARE 0 4	480u @ 119	54'				<del></del>	
AS INFORMATION							
	11952	11954	11958	11964	11968		
DEPTH (feet)	11952 2800	11954 4480	11958 4400	11964 4320	11968 3520		
OEPTH (feet)				<u> </u>			
DEPTH (feet)  OTAL (units)  C1 (ppm)	2800	4480	4400	4320	3520		
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)	2800 174900	4480 280194	4400 275100	4320 271400	3520 152099		
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	2800 174900 36111	4480 280194 64400	4400 275100 64114	4320 271400 63711	3520 152099 42011		
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	2800 174900 36111 18972	4480 280194 64400 32091	4400 275100 64114 31715	4320 271400 63711 31142	3520 152099 42011 25680		
CAS INFORMATION  DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)	2800 174900 36111 18972 2790	4480 280194 64400 32091 4470	4400 275100 64114 31715 4391	4320 271400 63711 31142 4309	3520 152099 42011 25680 3751		

	WELL NAME	5A2 SUNDAN	CE	ļ		SHOW REPORT #	73
11/9/91 FORMATION WASATCH	<u> </u>	CAL DURLYAIN		OF SHOW INTERVA	11,994' -	<u> </u>	
AVERAGE DRILL RATE BEFORE SHO	ow	13 min/	AVERA	GE DRILL RATE DUF		12	min / 4
AVERAGE DRILL RATE AFTER SHOW	w		· · · · · · · · · · · · · · · · · · ·			12	min / ft
		13 min /	ft	· · · · · · · · · · · · · · · · · · ·			<del>,</del>
SAMPLE DESCRIPTION (II	thology type and d	lagras of navasit	hu audamaa af	fracturing fluores	occompo euto)		
				rracturing, nuon	escence, cuts )	<u>.</u>	
25% SHALE 60% re	d 20% gn 10%	ltgy 10%	blk				
				:			
SH rd blky sbplt	y sft occ fr	m sdy w m-	fgr wrdd S	SS gr	T-10		
75% SS clr ltgy	transl m-fqr	wcmt vang	-sbang m-	osrt v calc	arg lmy o	cc wrdd c-	vfar
uncons SS							· ·
uncons 55	- <del>3-</del>	<del></del>					······································
OT TOUR THE P		DDOM: 075	ATTEN				
SLIGHT INCR HEAV				SR .			
6' FLARE @ 12,0	00 8'FLA	RE @ 12,07	<del></del>	<del></del>			
NO VIS STN	VERY WEAK	DIFF CUT					
				1			· · ·
GAS INFORMATION				;			
DEPTH (feet)	11.994	11,999	12,000	12,004	12,007	12,010	
		1	l		•	ł	1
		3,200	3,680	4.320	4.800	560	
OTAL (units)	104,000	3,200	3,680	4,320	4,800	560 23,600	_
FOTAL (units)	104,000 29,050	136,000	168,000	192,000	272,000	23,600	
COTAL (units) C1 (ppm) C2 (ppm)	104,000 29,050 20,800	136,000 34,300	168,000 39,200	192,000	272,000 42,700	23,600	
COTAL (units) C1 (ppm) C2 (ppm) C3 (ppm)	104,000 29,050 20,800 3,500	136,000 34,300 22,400	168,000 39,200 24,000	192,000 43,400 27,200	272,000 42,700 28,800	23,600 4,760 4,480	
COTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	104,000 29,050 20,800	136,000 34,300 22,400 3,000	168,000 39,200 24,000 5,000	192,000 43,400 27,200 5,000	272,000 42,700 28,800 4,400	23,600 4,760 4,480 740	
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	104,000 29,050 20,800 3,500	136,000 34,300 22,400	168,000 39,200 24,000	192,000 43,400 27,200	272,000 42,700 28,800	23,600 4,760 4,480	
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	104,000 29,050 20,800 3,500	136,000 34,300 22,400 3,000	168,000 39,200 24,000 5,000	192,000 43,400 27,200 5,000	272,000 42,700 28,800 4,400	23,600 4,760 4,480 740	
COTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NC4 (ppm)	104,000 29,050 20,800 3,500	136,000 34,300 22,400 3,000 9,000	168,000 39,200 24,000 5,000 10,500	192,000 43,400 27,200 5,000 12,000	272,000 42,700 28,800 4,400 11,400	23,600 4,760 4,480 740 2,400	
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)	104,000 29,050 20,800 3,500 8,250	136,000 34,300 22,400 3,000 9,000 1,280 1.7	168,000 39,200 24,000 5,000 10,500 1,760 1,9	192,000 43,400 27,200 5,000 12,000 2,400 2,3	272,000 42,700 28,800 4,400 11,400 2,800 2,5	23,600 4,760 4,480 740 2,400 -1,360	
CTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)	104,000 29,050 20,800 3,500 8,250	136,000 34,300 22,400 3,000 9,000 1,280 1.7	168,000 39,200 24,000 5,000 10,500 1,760 1,9	192,000 43,400 27,200 5,000 12,000 2,400 2,3	272,000 42,700 28,800 4,400 11,400 2,800 2,5	23,600 4,760 4,480 740 2,400 -1,360	
COTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)	104,000 29,050 20,800 3,500 8,250	136,000 34,300 22,400 3,000 9,000 1,280 1.7	168,000 39,200 24,000 5,000 10,500 1,760 1,9	192,000 43,400 27,200 5,000 12,000 2,400 2,3	272,000 42,700 28,800 4,400 11,400 2,800 2,5	23,600 4,760 4,480 740 2,400 -1,360	
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g	104,000 29,050 20,800 3,500 8,250	136,000 34,300 22,400 3,000 9,000 1,280 1.7	168,000 39,200 24,000 5,000 10,500 1,760 1,9	192,000 43,400 27,200 5,000 12,000 2,400 2,3	272,000 42,700 28,800 4,400 11,400 2,800 2,5	23,600 4,760 4,480 740 2,400 -1,360	
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g	104,000 29,050 20,800 3,500 8,250 torquing of bit, s	136,000 34,300 22,400 3,000 9,000 1,280 1.7	168,000 39,200 24,000 5,000 10,500 1,760 1,9	192,000 43,400 27,200 5,000 12,000 2,400 2,3	272,000 42,700 28,800 4,400 11,400 2,800 2,5	23,600 4,760 4,480 740 2,400 -1,360	
TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG) OTHER COMMENTS (e.g	104,000 29,050 20,800 3,500 8,250 torquing of bit, s	136,000 34,300 22,400 3,000 9,000 1,280 1.7	168,000 39,200 24,000 5,000 10,500 1,760 1,9	192,000 43,400 27,200 5,000 12,000 2,400 2,3	272,000 42,700 28,800 4,400 11,400 2,800 2,5	23,600 4,760 4,480 740 2,400 -1,360	
COTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)  OTHER COMMENTS (e.g	104,000 29,050 20,800 3,500 8,250 torquing of bit, s	136,000 34,300 22,400 3,000 9,000 1,280 1.7	168,000 39,200 24,000 5,000 10,500 1,760 1,9	192,000 43,400 27,200 5,000 12,000 2,400 2,3	272,000 42,700 28,800 4,400 11,400 2,800 2,5	23,600 4,760 4,480 740 2,400 -1,360	

DATE 11/10/91	WELL NAME	4-15A2 SUI	NDANCE		SHOW REPORT #
ORMATION				EPTH OF SHOW INTERVAL	
WASATO		13.5 min /	A	VERAGE DRILL RATE DURI	
AVERAGE DRILL RATE AFTER SHOW		110117	<del></del>	<u> </u>	8 min / ft
		13.0 min/	ft		<del></del>
SAMPLE DESCRIPTION ( lith	iology, type and i	degree of norosi	tv evidence	of fracturing, fluore	scence cuts)
12070' SPL 100%		DKGY & RD S			
		okor a ko k	<u> </u>		
SH dkay-ayblk 1+	rdorna_rdb				cc blk SH beg smooth
on day grota, it	Tuoring—rub.	LII, LIM, II—S.	r-oce me	d care, sity, o	cc blk SH beg smooth
SC alm troal					
					rt,pcmt,pred_unconsol,
					SLO WK FNT STRMG CUT,
			vis stn,	gd poro, mod a	mnt free wh cly,tr
crs gr clr QI	Z XLS-sban	g-sbrnd			
				1	
			<del> </del>		
SL INCR IN BI	K OIL OVER	SHKR			
					· · · · · · · · · · · · · · · · · · ·
OAC INFORMATION			·	1	
GAS INFORMATION	12060	12064	12066	12068	
DEPTH (feet)		+	<del> </del>		
TOTAL (units)	790	4120	2400		
C1 (ppm)	10440	180080	80640		
C2 (ppm)	840	16100	5680		
C3 (ppm)	1040	4810	3210		
IC4 (ppm)	400	1511	801	604	
NC4 (ppm)	1260	4517	2013	3 1907	
	1	3300	1610	810	
NET INCREASE (units)		1		l l	1
		5.2	3.0	2.0	
RATIO (Pk:BG)		<del></del>			
RATIO (Pk:BG) OTHER COMMENTS (e.g		<del></del>			
	torquing of bit, s	<del></del>			
RATIO (Pk:BG) OTHER COMMENTS (e.g		<del></del>			
RATIO (Pk:BG) OTHER COMMENTS (e.g WT IN/OUT	11.4/10.9	<del></del>			
RATIO (Pk:BG) OTHER COMMENTS (e.g	11.4/10.9	<del></del>			
RATIO (Pk:BG) OTHER COMMENTS (e.g WT IN/OUT	11.4/10.9	<del></del>			

1/11/91	DATE	WELL NAME				·	SHOW REPORT #	
12,108' - 12,142'   AVERAGE DRILL RATE ELORE SHOW   13,5 min / ft   13,5 min	11/11/91	4-1	L5A2 SUNDAI		OF SHOW INTERVAL			75
7.5 min /ft 13.5 min /ft 16 min /ft 16 min /ft 16 min /ft 16 min /ft 16 min /ft 16 min /ft 17 min /ft 17 min /ft 18 min /	WASATCH					12,108' -	- 12,142'	
SAMPLE DESCRIPTION (lithology, type and degree of porosity, evidence of fracturing, fluorescence, cuts)  20% SHALE 70% rd 10% qm 10% lqy 10% bm  SH rd blky occ sb plty splty sl calc rthy-sb wxy occ wady occ mot w/lgy sh grdg to varg s  80% SS clr frst trnsl f-vfgr sbang-wrdd occ v ang w/conq frac p-mcmt psrt slcalc cly Ø  pred uncons grs  YEL BL FLOR 20% SPL FAST MKY CUT W/TR STM THRU SPL.  INCR V DK BN OIL OVER SHAKER  2' FLARE 12,116' 4' FLARE 12,130'  GAS INFORMATION  DEPTH (feet) 12,108 12,112 12,116 12,118 12,122 12,142  TOTAL (units) 180 2,080 2,560 2,320 2,480 1,360  C1 (ppm) 6,048 182,000 224,000 203,000 217,000 131,600  C2 (ppm) 960 39,000 48,000 43,500 46,500 28,800  C3 (ppm) 672 17,000 21,000 19,000 20,500 12,600  C4 (ppm) 216 2,630 3,240 2,940 3,140 1,800  NC4 (ppm) 832 6,340 7,800 7,100 7,600 5,720  NET INCREASE (units) 1,900 2,380 2,140 2,300 1,180  RATIO (PK:BG) 11.5 14.2 12.9 13.8 7.6		Y	7.5 min/		GE DRILL RATE DURI	NG SHOW	13.	5 min / ft
20% SHALE 70% rd 10% qn 10% lqy 10% bm  SH rd blky occ sb plty splty sl calc rthy-sb wxy occ vsdy occ mot w/lgy sh grdg to varg s 80% SS clr frst trnsl f-vfgr sbang-wrdd occ v ang w/cong frac p-mcmt psrt slcalc cly Ø pred uncons grs  YEL BL FLOR 20% SPL FAST MKY CUT W/TR STM THRU SPL.  INCR V DK BN OIL OVER SHAKER  2' FLARE 12,116' 4' FLARE 12,130'  GAS INFORMATION  DEPTH (feet) 12,108 12,112 12,116 12,118 12,122 12,142 10TAL (units) 180 2,080 2,560 2,320 2,480 1,360 11 (ppm) 6,048 182,000 224,000 203,000 217,000 131,600 12 (ppm) 960 39,000 48,000 43,500 46,500 28,800 12 (ppm) 672 17,000 21,000 19,000 20,500 12,600 104 (ppm) 216 2,630 3,240 2,940 3,140 1,800 104 (ppm) 832 6,340 7,800 7,100 7,600 5,720 NETINCREASE (units) 1,900 2,380 2,140 2,300 1,180 RATIO (Pk:BG) 11.5 14.2 12.9 13.8 7.6	AVERAGE DRILL RATE AFTER SHOW		16 min/	ft		·		
20% SHALE 70% rd 10% qn 10% lqy 10% bn  SH rd blky occ sb plty splty sl calc rthy-sb wxy occ vsdy occ mot w/lgy sh grdg to varg s  80% SS clr frst trnsl f-vfgr sbang-wrdd occ v ang w/cong frac p-mcmt psrt slcalc cly Ø  pred uncons grs  YEL BL FLOR 20% SPL FAST MKY CUT W/TR STM THRU SPL  INCR V DK BN OIL OVER SHAKER  2' FLARE 12,116' 4' FLARE 12,130'  GAS INFORMATION  DEPTH (feet) 12,108 12,112 12,116 12,118 12,122 12,142 107AL (units) 180 2,080 2,560 2,320 2,480 1,360 11,60								
SH rd blky occ sb plty splty sl calc rthy-sb wxy occ vsdy occ mot w/lgy sh grdg to varg s 80% SS clr frst trnsl f-vfgr sbang-wrdd occ v ang w/conq frac p-mcmt psrt slcalc cly Ø pred uncons grs  YEL BL FLOR 20% SPL FAST MKY CUT W/TR STM THRU SPL.  INCR V DK BN OIL OVER SHAKER  2' FLARE 12,116' 4' FLARE 12,130'  GASINFORMATION  DEPTH (feet) 12,108 12,112 12,116 12,118 12,122 12,142  TOTAL (units) 180 2,080 2,560 2,320 2,480 1,360 C1 (ppm) 6,048 182,000 224,000 203,000 217,000 131,600 C2 (ppm) 960 39,000 48,000 43,500 46,500 28,800 C2 (ppm) 672 17,000 21,000 19,000 20,500 12,600 C4 (ppm) 216 2,630 3,240 2,940 3,140 1,800 NC4 (ppm) 832 6,340 7,800 7,100 7,600 5,720 NETINCREASE (units) 1,900 2,380 2,140 2,300 1,180 RATIO (Pk:8G) 11.5 14.2 12.9 13.8 7.6  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)	SAMPLE DESCRIPTION (11th	ology, type and d	legree of porosi	ly, evidence of f	racturing, fluore	scence, cuts)		
80% SS clr frst trnsl f-vfgr sbang-wrdd occ v ang w/conq frac p-mcmt psrt slcalc cly pred uncons grs  YEL BL FLOR 20% SPL FAST MKY CUT W/TR STM THRU SPL.  INCR V DK BN OIL OVER SHAKER  2' FLARE 12,116' 4' FLARE 12,130'  GAS INFORMATION  DEPTH (feet) 12,108 12,112 12,116 12,118 12,122 12,142 100 100 100 100 100 100 100 100 100 10	20% SHALE 70% rd 10	)% gn 10% lo	gy 10% bn		·			
Pred uncons grs           YEL, BL, FLOR 20% SPL FAST MKY CUT W/TR STM THRU SPL.           INCR V DK BN OIL OVER SHAKER           2' FLARE 12,116'         4' FLARE 12,130'           GAS INFORMATION           DEPTH (feet)         12,108         12,112         12,116         12,118         12,122         12,142           TOTAL (units)         180         2,080         2,560         2,320         2,480         1,360           C1 (ppm)         6,048         182,000         224,000         203,000         217,000         131,600           C2 (ppm)         960         39,000         48,000         43,500         46,500         28,800           C3 (ppm)         672         17,000         21,000         19,000         20,500         12,600           IC4 (ppm)         216         2,630         3,240         2,940         3,140         1,800           NC4 (ppm)         832         6,340         7,800         7,100         7,600         5,720           NET INCREASE (units)         1,900         2,380         2,140         2,300         1,180           RATIO (PK: SG)         11.5         14.2         12.9         13.8         7.6	SH rd blky occ sb p	olty splty s	sl calc rtl	ny-sb wxy	occ vsdy oc	c mot w/lo	gy sh grdg	to varg s
YEL BL FLOR 20% SPL FAST MKY CUT W/TR STM THRU SPL  INCR V DK BN OIL OVER SHAKER  2' FLARE 12,116'	80% SS clr frst trn	sl f-vfgr s	sbang-wrdd	occ v ang	w/conq fra	c p-mcmt p	srt slcalc	cly Ø
INCR V DK BN OIL OVER SHAKER  2' FLARE 12,116' 4' FLARE 12,130'  GAS INFORMATION  DEPTH (feet) 12,108 12,112 12,116 12,118 12,122 12,142 TOTAL (units) 180 2,080 2,560 2,320 2,480 1,360 C1 (ppm) 6,048 182,000 224,000 203,000 217,000 131,600 C2 (ppm) 960 39,000 48,000 43,500 46,500 28,800 C3 (ppm) 672 17,000 21,000 19,000 20,500 12,600 IC4 (ppm) 216 2,630 3,240 2,940 3,140 1,800 NC4 (ppm) 832 6,340 7,800 7,100 7,600 5,720 NET INCREASE (units) 1,900 2,380 2,140 2,300 1,180 RATIO (Pk:BG) 11.5 14.2 12.9 13.8 7.6  OTHER COMMENTS (e.g torquing of bit. spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT	pred uncons grs			· · · · · · · · · · · · · · · · · · ·				
INCR V DK BN OIL OVER SHAKER  2' FLARE 12,116' 4' FLARE 12,130'  GAS INFORMATION  DEPTH (feet) 12,108 12,112 12,116 12,118 12,122 12,142 TOTAL (units) 180 2,080 2,560 2,320 2,480 1,360 C1 (ppm) 6,048 182,000 224,000 203,000 217,000 131,600 C2 (ppm) 960 39,000 48,000 43,500 46,500 28,800 C3 (ppm) 672 17,000 21,000 19,000 20,500 12,600 IC4 (ppm) 216 2,630 3,240 2,940 3,140 1,800 NC4 (ppm) 832 6,340 7,800 7,100 7,600 5,720 NET INCREASE (units) 1,900 2,380 2,140 2,300 1,180 RATIO (Pk:BG) 11.5 14.2 12.9 13.8 7.6  OTHER COMMENTS (e.g torquing of bit. spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT					1			
INCR V DK BN OIL OVER SHAKER  2' FLARE 12,116' 4' FLARE 12,130'  GAS INFORMATION  DEPTH (feet) 12,108 12,112 12,116 12,118 12,122 12,142 TOTAL (units) 180 2,080 2,560 2,320 2,480 1,360 C1 (ppm) 6,048 182,000 224,000 203,000 217,000 131,600 C2 (ppm) 960 39,000 48,000 43,500 46,500 28,800 C3 (ppm) 672 17,000 21,000 19,000 20,500 12,600 IC4 (ppm) 216 2,630 3,240 2,940 3,140 1,800 NC4 (ppm) 832 6,340 7,800 7,100 7,600 5,720 NET INCREASE (units) 1,900 2,380 2,140 2,300 1,180 RATIO (Pk:BG) 11.5 14.2 12.9 13.8 7.6  OTHER COMMENTS (e.g torquing of bit. spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT	YEL BL FLOR 20% SPI	FAST MKY	CUT W/TR	STM THRU S	PL			
2' FLARE 12,116' 4' FLARE 12,130'  GAS INFORMATION  DEPTH (feet) 12,108 12,112 12,116 12,118 12,122 12,142 10TAL (units) 180 2,080 2,560 2,320 2,480 1,360 11,600 10 10 10 10 10 10 10 10 10 10 10 10 1								
2' FLARE 12,116' 4' FLARE 12,130'  GAS INFORMATION  DEPTH (feet) 12,108 12,112 12,116 12,118 12,122 12,142 10TAL (units) 180 2,080 2,560 2,320 2,480 1,360 11,600 10 10 10 10 10 10 10 10 10 10 10 10 1	INCR V DK BN OIL OV	ER SHAKER						
GAS INFORMATION  DEPTH (feet) 12,108 12,112 12,116 12,118 12,122 12,142  TOTAL (units) 180 2,080 2,560 2,320 2,480 1,360  C1 (ppm) 6,048 182,000 224,000 203,000 217,000 131,600  C2 (ppm) 960 39,000 48,000 43,500 46,500 28,800  C3 (ppm) 672 17,000 21,000 19,000 20,500 12,600  IC4 (ppm) 216 2,630 3,240 2,940 3,140 1,800  NC4 (ppm) 832 6,340 7,800 7,100 7,600 5,720  NET INCREASE (units) 1,900 2,380 2,140 2,300 1,180  RATIO (Pk:BG) 11.5 14.2 12.9 13.8 7.6  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT								
GAS INFORMATION  DEPTH (feet) 12,108 12,112 12,116 12,118 12,122 12,142  TOTAL (units) 180 2,080 2,560 2,320 2,480 1,360  C1 (ppm) 6,048 182,000 224,000 203,000 217,000 131,600  C2 (ppm) 960 39,000 48,000 43,500 46,500 28,800  C3 (ppm) 672 17,000 21,000 19,000 20,500 12,600  IC4 (ppm) 216 2,630 3,240 2,940 3,140 1,800  NC4 (ppm) 832 6,340 7,800 7,100 7,600 5,720  NET INCREASE (units) 1,900 2,380 2,140 2,300 1,180  RATIO (Pk:BG) 11.5 14.2 12.9 13.8 7.6  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT	2' FLARE 12.116'	4' FLARE	12.1301					
DEPTH (feet)         12,108         12,112         12,116         12,118         12,122         12,142           TOTAL (units)         180         2,080         2,560         2,320         2,480         1,360           C1 (ppm)         6,048         182,000         224,000         203,000         217,000         131,600           C2 (ppm)         960         39,000         48,000         43,500         46,500         28,800           C3 (ppm)         672         17,000         21,000         19,000         20,500         12,600           IC4 (ppm)         216         2,630         3,240         2,940         3,140         1,800           NC4 (ppm)         832         6,340         7,800         7,100         7,600         5,720           NET INCREASE (units)         1,900         2,380         2,140         2,300         1,180           RATIO (Pk:BG)         11.5         14.2         12.9         13.8         7.6           OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)	2 111111 111/110		12/130		:			
DEPTH (feet)         12,108         12,112         12,116         12,118         12,122         12,142           TOTAL (units)         180         2,080         2,560         2,320         2,480         1,360           C1 (ppm)         6,048         182,000         224,000         203,000         217,000         131,600           C2 (ppm)         960         39,000         48,000         43,500         46,500         28,800           C3 (ppm)         672         17,000         21,000         19,000         20,500         12,600           IC4 (ppm)         216         2,630         3,240         2,940         3,140         1,800           NC4 (ppm)         832         6,340         7,800         7,100         7,600         5,720           NET INCREASE (units)         1,900         2,380         2,140         2,300         1,180           RATIO (Pk:BG)         11.5         14.2         12.9         13.8         7.6    OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT								
DEPTH (feet)         12,108         12,112         12,116         12,118         12,122         12,142           TOTAL (units)         180         2,080         2,560         2,320         2,480         1,360           C1 (ppm)         6,048         182,000         224,000         203,000         217,000         131,600           C2 (ppm)         960         39,000         48,000         43,500         46,500         28,800           C3 (ppm)         672         17,000         21,000         19,000         20,500         12,600           IC4 (ppm)         216         2,630         3,240         2,940         3,140         1,800           NC4 (ppm)         832         6,340         7,800         7,100         7,600         5,720           NET INCREASE (units)         1,900         2,380         2,140         2,300         1,180           RATIO (Pk:BG)         11.5         14.2         12.9         13.8         7.6    OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT			····	<del></del>	-			
DEPTH (feet)         12,108         12,112         12,116         12,118         12,122         12,142           TOTAL (units)         180         2,080         2,560         2,320         2,480         1,360           C1 (ppm)         6,048         182,000         224,000         203,000         217,000         131,600           C2 (ppm)         960         39,000         48,000         43,500         46,500         28,800           C3 (ppm)         672         17,000         21,000         19,000         20,500         12,600           IC4 (ppm)         216         2,630         3,240         2,940         3,140         1,800           NC4 (ppm)         832         6,340         7,800         7,100         7,600         5,720           NET INCREASE (units)         1,900         2,380         2,140         2,300         1,180           RATIO (Pk:BG)         11.5         14.2         12.9         13.8         7.6    OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT								
TOTAL (units)  180  2,080  2,560  2,320  2,480  1,360  C1 (ppm)  6,048  182,000  224,000  203,000  217,000  131,600  C2 (ppm)  960  39,000  48,000  43,500  46,500  28,800  C3 (ppm)  672  17,000  21,000  19,000  20,500  12,600  IC4 (ppm)  216  2,630  3,240  2,940  3,140  1,800  NC4 (ppm)  832  6,340  7,800  7,100  7,600  5,720  NET INCREASE (units)  1,900  2,380  2,140  2,300  1,180  RATIO (Pk:BG)  11.5  14.2  12.9  13.8  7.6  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT	GAS INFORMATION				1			
TOTAL (units)  180  2,080  2,560  2,320  2,480  1,360  C1 (ppm)  6,048  182,000  224,000  203,000  217,000  131,600  C2 (ppm)  960  39,000  48,000  43,500  46,500  28,800  C3 (ppm)  672  17,000  21,000  19,000  20,500  12,600  IC4 (ppm)  216  2,630  3,240  2,940  3,140  1,800  NC4 (ppm)  832  6,340  7,800  7,100  7,600  5,720  NET INCREASE (units)  1,900  2,380  2,140  2,300  1,180  RATIO (Pk:BG)  11.5  14.2  12.9  13.8  7.6  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT	DEPTH (feet)	12,108	12.112	12.116	12.118	12.122	12.142	
C1 (ppm) 6,048 182,000 224,000 203,000 217,000 131,600 C2 (ppm) 960 39,000 48,000 43,500 46,500 28,800 C3 (ppm) 672 17,000 21,000 19,000 20,500 12,600 IC4 (ppm) 216 2,630 3,240 2,940 3,140 1,800 NC4 (ppm) 832 6,340 7,800 7,100 7,600 5,720 NET INCREASE (units) 1,900 2,380 2,140 2,300 1,180 RATIO (Pk: BG) 11.5 14.2 12.9 13.8 7.6  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT	TOTAL (units)							
C2 (ppm) 960 39,000 48,000 43,500 46,500 28,800 C3 (ppm) 672 17,000 21,000 19,000 20,500 12,600 IC4 (ppm) 216 2,630 3,240 2,940 3,140 1,800 NC4 (ppm) 832 6,340 7,800 7,100 7,600 5,720 NET INCREASE (units) 1,900 2,380 2,140 2,300 1,180 RATIO (Pk:BG) 11.5 14.2 12.9 13.8 7.6  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT	C1 (ppm)							
C3 (ppm) 672 17,000 21,000 19,000 20,500 12,600  IC4 (ppm) 216 2,630 3,240 2,940 3,140 1,800  NC4 (ppm) 832 6,340 7,800 7,100 7,600 5,720  NET INCREASE (units) 1,900 2,380 2,140 2,300 1,180  RATIO (Pk:BG) 11.5 14.2 12.9 13.8 7.6  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT								
IC4 (ppm)       216       2,630       3,240       2,940       3,140       1,800         NC4 (ppm)       832       6,340       7,800       7,100       7,600       5,720         NET INCREASE (units)       1,900       2,380       2,140       2,300       1,180         RATIO (Pk:BG)       11.5       14.2       12.9       13.8       7.6         OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)         DRILLING W MUD 11.4 IN 10.6 OUT								
NC4 (ppm)       832       6,340       7,800       7,100       7,600       5,720         NET INCREASE (units)       1,900       2,380       2,140       2,300       1,180         RATIO (Pk:BG)       11.5       14.2       12.9       13.8       7.6         OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)         DRILLING W MUD 11.4 IN 10.6 OUT								
NET INCREASE (units)         1,900         2,380         2,140         2,300         1,180           RATIO (Pk:BG)         11.5         14.2         12.9         13.8         7.6           OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)           DRILLING W MUD 11.4 IN 10.6 OUT		1						
PATIO (Pk:BG)  11.5  14.2  12.9  13.8  7.6  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT		032						
OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system)  DRILLING W MUD 11.4 IN 10.6 OUT			Ţ					
DRILLING W MUD 11.4 IN 10.6 OUT	TATIO (FK.BG)		11.5	14.2	12.9	13.0	7.0	<u> </u>
DRILLING W MUD 11.4 IN 10.6 OUT	OTHER COMMENTS (e.g	torquing of bit, s	pikey drill time o	or gas, changes	in mud system )			
			· · · · · · · · · · · · · · · · · · ·		, , ,			
CORRELATION W/CONTROL WELL(S)	DIGITALING W PADD 11.4	. 114 10.0						
CORRELATION W / CONTROL WELL (S)		<del></del>			:			· · · · · · · · · · · · · · · · · · ·
	CORRELATION W/CONTRO	L WELL (S)			<u> </u>			
!								
					1			M

DATE 11/11/91	WELL NAME	4-15A2	SUNDANC	E		SHOW REPORT	<sup>#</sup> 76
FORMATION	······································			PTH OF SHOW INTER	/AL	<del></del>	
AVERAGE DRILL RATE BEFORE SH	10W	16.5 min/	ft AV	ERAGE DRILL RATE D	JRING SHOW	10	min / ft
AVERAGE DRILL RATE AFTER SHO	)W	15.0 min/					ami / II
		13.0 111117					
SAMPLE DESCRIPTION (I	ithology, type and d	legree of porosi	ty, evidence	of fracturing, fluo	rescence, cuts	)	
12150 SPL 90%S	S 10%SH						
							· · · · · · · · · · · · · · · · · · ·
SH 90%rd,10%ltg	y,tr qn s	ft to frm.	mod calc	slty-occ g	rda to SLT	ST_NESOC	
SS clr-trnsl-op	q,tnwh,vf-mg	r,sbang-sb	rnd-occ	wrnd,psrt,p	cmt,pred u	nconsol,	
V SPTTY MOD	<del></del>						
gd poro,fr a					in India	no sen,	
J. E W	"	<u>1</u>		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
					:		<u>.</u>
					i .		
					: 		
FR AMNT BLK OIL	IN SPLS		<del> </del>				
GAS INFORMATION	NO FL	4' FL		3' FL			
DEPTH (feet)	12142	12146	12450	12156	1		
TOTAL (units)	1360	4320	3840	3680			
C1 (ppm)	131600	385781	344448	331200			
C2 (ppm)	28800	85729	76544	73600			
C3 (ppm)	12600	42491	37939	36480			
IC4 (ppm)	1800	6989	6241	6001			
NC4 (ppm)	5720	13045	11648	11200			
NET INCREASE (units)		2960	2480	2320			
RATIO (Pk:BG)		3.1	2.8	2.7	1		
RATIO (Pk:BG)	<u> </u>	3.1	2.8	2.7			
OTHER COMMENTS (e.g.	torquing of bit, s	pikey drill time o	or gas, chan	ges in mud system	1)		
WT IN/OUT 11	.4/10.6 w/4	320u @ 121	46'		· · · · · · · · · · · · · · · · · · ·		
						·	
CORRELATION W / CONTR	ROL WELL (S)				·		
	···						
						<del></del>	

	WELL NAME	4-15A2				SHOW REPORT #	77
FORMATION			DEPTH	OF SHOW INTERVA	12180	'-12192'	
AVERAGE DRILL RATE BEFORE SHO	W	14 min / fr		GE DRILL RATE DUR	ING SHOW	5.5	min / f
AVERAGE DRILL RATE AFTER SHOV	V	11.5 min/fi					
						<del></del>	
SAMPLE DESCRIPTION (III	thology, type and	degree of porosity	, evidence of f	racturing, fluore	scence, cuts)		
12190'SPL 100%	ss tr	SH - rd,ltg	yygn	:			
SS clr-trnsl-opq	,vf-mgr,sbr	nd-sbang-occ	wrnd,psr	t,pcmt,959	unconsol	tr orng grs	,
MOD AMNT BRI	YEL FLOR, MOI	FST STRMG	CUT, STRON	G MLKY POO	L,MOD BRI	YEL RES RNG	,
no vis stn,gd	int grnlr ]	poro, mod amr	nt free wh	cly		*	
				1		<del></del>	
	· · · · · · · · · · · · · · · · · · ·			!			
		<del></del>		i		***************************************	
	<del></del>						
	<u> </u>						
				<del></del>	<del> </del>		
ABNT GRN PRFN OV	ER SHKR/IN I	ATTD					
		<del></del>					
SAS INFORMATION	3'FL	5'FL	8'FL	6'FL	6'FL		
DEPTH (feet)	12180	12185	12187	12189	12192		
		4000	5280	4640	4790		
OTAL (units)	3620	4800	3200	4040	T 770		
	3620 251101	201600		† <del></del>			
FOTAL (units) C1 (ppm) C2 (ppm)			97200	108010	187204		
C1 (ppm)	251101	201600 50400	97200 53200	108010 47601	187204 58804		
C1 (ppm)	251101 36411	201600	97200	108010	187204 58804 26400		
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm)	251101 36411 19410	201600 50400 24001	97200 53200 31200 5400	108010 47601 22491 4800	187204 58804 26400 4998		
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm)	251101 36411 19410 3001	201600 50400 24001 3600 9210	97200 53200 31200 5400 11700	108010 47601 22491 4800 9900	187204 58804 26400 4998 10800		
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NC4 (ppm)	251101 36411 19410 3001	201600 50400 24001 3600 9210 1180	97200 53200 31200 5400 11700 1660	108010 47601 22491 4800 9900 1020	187204 58804 26400 4998 10800 1170		
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NC4 (ppm)	251101 36411 19410 3001	201600 50400 24001 3600 9210	97200 53200 31200 5400 11700	108010 47601 22491 4800 9900	187204 58804 26400 4998 10800		
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)	251101 36411 19410 3001 7729	201600 50400 24001 3600 9210 1180 1.3	97200 53200 31200 5400 11700 1660 1.5	108010 47601 22491 4800 9900 1020	187204 58804 26400 4998 10800 1170 1.3		
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)  OTHER COMMENTS (e.g	251101 36411 19410 3001 7729	201600 50400 24001 3600 9210 1180 1.3	97200 53200 31200 5400 11700 1660 1.5	108010 47601 22491 4800 9900 1020	187204 58804 26400 4998 10800 1170 1.3		
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)  OTHER COMMENTS (e.g	251101 36411 19410 3001 7729 . torquing of bit, s	201600 50400 24001 3600 9210 1180 1.3	97200 53200 31200 5400 11700 1660 1.5	108010 47601 22491 4800 9900 1020	187204 58804 26400 4998 10800 1170 1.3		
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)  OTHER COMMENTS (e.g WT IN/OUT 11.4	251101 36411 19410 3001 7729 . torquing of bit, s	201600 50400 24001 3600 9210 1180 1.3	97200 53200 31200 5400 11700 1660 1.5	108010 47601 22491 4800 9900 1020 1.2	187204 58804 26400 4998 10800 1170 1.3		
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)  OTHER COMMENTS (e.g WT IN/OUT 11.4	251101 36411 19410 3001 7729 . torquing of bit, s 4+/10.8 40u w/9¹ FL	201600 50400 24001 3600 9210 1180 1.3	97200 53200 31200 5400 11700 1660 1.5	108010 47601 22491 4800 9900 1020 1.2	187204 58804 26400 4998 10800 1170 1.3		
C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC4 (ppm) NET INCREASE (units) RATIO (Pk:BG)  OTHER COMMENTS (e.g WT IN/OUT 11.4 CG @ 12185' - 544	251101 36411 19410 3001 7729 . torquing of bit, s 4+/10.8 40u w/9¹ FL	201600 50400 24001 3600 9210 1180 1.3	97200 53200 31200 5400 11700 1660 1.5	108010 47601 22491 4800 9900 1020 1.2	187204 58804 26400 4998 10800 1170 1.3		

	WELL NAME	4-15A	2 SUNDANC	В		SHOW REPORT	* 78
ORMATION	SATCH			H OF SHOW INTERVA	12323'-	-12328'	
AVERAGE DRILL RATE BEFORE SHO	w 14	l min /		AGE DRILL RATE DUR		5	min / ft
AVERAGE DRILL RATE AFTER SHOW		3.5 min /					(11111777
		nint)	11				
SAMPLE DESCRIPTION (III	hology, type and	degree of poros	ity, evidence of	fracturing, fluore	scence, cuts)		
12330'SPL 70%				<u></u>			
				!		<del></del>	
SH 40%rd,20gn,2	01tgy,10dkg	y,10bn	sft to fr	m,slty,sl-m	od calc.o	cc sd grs	incl
				i	•		
SS clr-trnsl,wh	-ltqy,vf-fq	r.rr mgr.s	brnd-sban	g.msrt.p-mc	mt.sl clv	fil calc	
50% unconsol							
RNG, no vis s	·	<del></del>		011413	210 1111 1	0011/2011 1411	
	, 3~ F		<u>1</u>		<del></del>		
		···					
	<del></del>						
SL-MOD INCR IN	OIL IN SPLS	<u> </u>			· 2		
	· · · · · · · · · · · · · · · · · · ·						
GAS INFORMATION	NO ET	२ ग्रह्म	2161	0_1'ET T	NAMEDWIN		
<del></del>	NO FL	3'FL	2'FL	0-1'FL I	NTERMIT		
DEPTH (feet)	12323	12326	12329	12330	NTERMIT		
DEPTH (feet)  FOTAL (units)	12323 1280	12326 3630	12329 3010	12330 2104	NTERMIT		
DEPTH (feet) FOTAL (units) C1 (ppm)	12323 1280 71428	12326 3630 200000	12329 3010 176097	12330 2104 136152	NTERMIT		
DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm)	12323 1280 71428 9609	12326 3630 200000 36800	12329 3010 176097 31914	12330 2104 136152 17640	NTERMIT		
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	12323 1280 71428 9609 5474	12326 3630 200000 36800 15300	12329 3010 176097 31914 12960	12330 2104 136152 17640 9204	NTERMIT		
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)	12323 1280 71428 9609 5474 1807	12326 3630 200000 36800 15300 3350	12329 3010 176097 31914 12960 3107	12330 2104 136152 17640 9204 2425	NTERMIT		
GAS INFORMATION DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) IC4 (ppm)	12323 1280 71428 9609 5474	12326 3630 200000 36800 15300 3350 8010	12329 3010 176097 31914 12960 3107 7410	12330 2104 136152 17640 9204 2425 4410	NTERMIT		
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  IC4 (ppm)	12323 1280 71428 9609 5474 1807	12326 3630 200000 36800 15300 3350 8010 2350	12329 3010 176097 31914 12960 3107 7410 1730	12330 2104 136152 17640 9204 2425 4410	NTERMIT		
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  IC4 (ppm)  NC4 (ppm)  NET INCREASE (units)	12323 1280 71428 9609 5474 1807	12326 3630 200000 36800 15300 3350 8010	12329 3010 176097 31914 12960 3107 7410	12330 2104 136152 17640 9204 2425 4410	NTERMIT		
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  IC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	12323 1280 71428 9609 5474 1807 3211	12326 3630 200000 36800 15300 3350 8010 2350 2.8	12329 3010 176097 31914 12960 3107 7410 1730 2.3	12330 2104 136152 17640 9204 2425 4410 824 1.6			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	12323 1280 71428 9609 5474 1807 3211	12326 3630 200000 36800 15300 3350 8010 2350 2.8	12329 3010 176097 31914 12960 3107 7410 1730 2.3	12330 2104 136152 17640 9204 2425 4410 824 1.6			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	12323 1280 71428 9609 5474 1807 3211	12326 3630 200000 36800 15300 3350 8010 2350 2.8	12329 3010 176097 31914 12960 3107 7410 1730 2.3	12330 2104 136152 17640 9204 2425 4410 824 1.6			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  IC4 (ppm)  NC4 (ppm)  NET INCREASE-(units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	12323 1280 71428 9609 5474 1807 3211	12326 3630 200000 36800 15300 3350 8010 2350 2.8	12329 3010 176097 31914 12960 3107 7410 1730 2.3	12330 2104 136152 17640 9204 2425 4410 824 1.6			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  IC4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g  WT IN/OUT 11.4	12323 1280 71428 9609 5474 1807 3211 torquing of bit, s 6+/11.2	12326 3630 200000 36800 15300 3350 8010 2350 2.8	12329 3010 176097 31914 12960 3107 7410 1730 2.3	12330 2104 136152 17640 9204 2425 4410 824 1.6			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  IC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g  WT IN/OUT 11.4	12323 1280 71428 9609 5474 1807 3211 torquing of bit, s 6+/11.2	12326 3630 200000 36800 15300 3350 8010 2350 2.8	12329 3010 176097 31914 12960 3107 7410 1730 2.3	12330 2104 136152 17640 9204 2425 4410 824 1.6			
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  IC4 (ppm)  NC4 (ppm)  NET INCREASE-(units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	12323 1280 71428 9609 5474 1807 3211 torquing of bit, s 6+/11.2	12326 3630 200000 36800 15300 3350 8010 2350 2.8	12329 3010 176097 31914 12960 3107 7410 1730 2.3	12330 2104 136152 17640 9204 2425 4410 824 1.6			

	_   4	-15A2 SUN	DANCE				SHOW REPORT #	79
ORMATION	SATCH			DEPTH OF SHOW INT	ERVAL	12390'-	12401'	
VERAGE DRILL RATE BEFORE SHOV	v 1	.5 min		AVERAGE DRILL RAT	E DURING	SHOW	8	min / ft
VERAGE DRILL RATE AFTER SHOW	1	.5 min						
AMPLE DESCRIPTION (lith	ology, type and d	legree of poros	ity, eviden	e of fracturing, f	luoresc	ence, cuts)		
12400' SPL 1	0%SS 90%S	Н						
	·							
SH 50%gn,50%r	d,tr ltgy							
SH rdbrn-dkrd,	lt-mgn,gygn	,mott rdg	n,ltgy,	frm-sl sft,	n-sl	calc,gm	SH-sbwxy i	р
	· · · · · · · · · · · · · · · · · · ·							
SS clr-trnsl-o	pq,vf-fgr,s	bang-ang-	occ sbr	nd,msrt,pcm	nt,co	nsol,v f	ri,calcitic	<u> </u>
tr orng grs	tr gn inbd	SH,TR DU	L YEL F	LOR, V FNT I	ES R	NG, no ap	p stn,	
fr int grnl	r poro,tr f	ree wh cl	У					
					1			
	·				1			
				_				
TR/FR incr in	oil in spls	<b>.</b>			i			
AS INFORMATION	NO FLARE	S DURING	THIS SH	OW	<del></del>			
	NO FLARE	DURING 12390	THIS SH		5 .	12402	12404	
DEPTH (feet)	12387 480	12390 1090	1239	4 12396 0 1604		900	410	
DEPTH (feet) OTAL (units)	12387	12390	1239	4 12396 0 1604				
DEPTH (feet)  COTAL (units)  C1 (ppm)	12387 480 26000 3000	12390 1090	1239 128 8990 1050	4 12396 0 1604 0 110000 0 13000	)	900 84100 7080	410 27100 2108	
OEPTH (feet) OTAL (units) C1 (ppm) C2 (ppm)	12387 480 26000 3000 900	12390 1090 85000	1239 128 8990	4 12396 0 1604 0 110000 0 13000 0 5089	) )	900	410 27100	
DEPTH (feet)  OTAL (units)  O1 (ppm)  O2 (ppm)  O3 (ppm)	12387 480 26000 3000	12390 1090 85000 10000	1239 128 8990 1050	4 12396 0 1604 0 110000 0 13000 0 5089	) )	900 84100 7080	410 27100 2108	
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	12387 480 26000 3000 900	12390 1090 85000 10000 2009	1239 128 8990 1050 361	4 12396 0 1604 0 110000 0 13000 0 5089 9 704		900 84100 7080 950	410 27100 2108 705	
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)	12387 480 26000 3000 900 251	12390 1090 85000 10000 2009 410	1239 128 8990 1050 361 51	4 12396 0 1604 0 110000 0 13000 0 5089 9 704 0 2903	1	900 84100 7080 950 341	410 27100 2108 705 104	
DEPTH (feet)  COTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)	12387 480 26000 3000 900 251	12390 1090 85000 10000 2009 410 907	1239 128 8990 1050 361 51	4 12396 0 1604 0 110000 0 13000 0 5089 9 704 0 2903 0 1124	1	900 84100 7080 950 341 690	410 27100 2108 705 104 314	
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)	12387 480 26000 3000 900 251 710	12390 1090 85000 10000 2009 410 907 610 2.3	1239 128 8990 1050 361 51 125	4 12396 0 1604 0 110000 0 13000 0 5089 9 704 0 2903 0 1124 7 3.3	1	900 84100 7080 950 341 690 420	410 27100 2108 705 104 314	
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  IC4 (ppm)  IET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	12387 480 26000 3000 900 251 710	12390 1090 85000 10000 2009 410 907 610 2.3	1239 128 8990 1050 361 51 125	4 12396 0 1604 0 110000 0 13000 0 5089 9 704 0 2903 0 1124 7 3.3	1	900 84100 7080 950 341 690 420	410 27100 2108 705 104 314	
DEPTH (feet)  OTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	12387 480 26000 3000 900 251 710	12390 1090 85000 10000 2009 410 907 610 2.3	1239 128 8990 1050 361 51 125	4 12396 0 1604 0 110000 0 13000 0 5089 9 704 0 2903 0 1124 7 3.3	1	900 84100 7080 950 341 690 420	410 27100 2108 705 104 314	
GAS INFORMATION DEPTH (feet) TOTAL (units) C1 (ppm) C2 (ppm) C3 (ppm) C4 (ppm) NC5 (ppm) NC5 (ppm) NC6 (ppm) NC6 (ppm) NC7 (ppm) NC7 (ppm) NC7 (ppm) NC7 (ppm) NC7 (ppm) NC7 (pp	12387 480 26000 3000 900 251 710	12390 1090 85000 10000 2009 410 907 610 2.3	1239 128 8990 1050 361 51 125	4 12396 0 1604 0 110000 0 13000 0 5089 9 704 0 2903 0 1124 7 3.3	1	900 84100 7080 950 341 690 420	410 27100 2108 705 104 314	
DEPTH (feet)  FOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  DTHER COMMENTS (e.g  WT IN/OUT	12387 480 26000 3000 900 251 710  torquing of bit, sp	12390 1090 85000 10000 2009 410 907 610 2.3	1239 128 8990 1050 361 51 125	4 12396 0 1604 0 110000 0 13000 0 5089 9 704 0 2903 0 1124 7 3.3	1	900 84100 7080 950 341 690 420	410 27100 2108 705 104 314	
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NC4 (ppm)  NC4 (ppm)  NC4 (ppm)  NCT INCREASE (units)  RATIO (Pk:BG)  DTHER COMMENTS (e.g  WT IN/OUT	12387 480 26000 3000 900 251 710  torquing of bit, sp	12390 1090 85000 10000 2009 410 907 610 2.3	1239 128 8990 1050 361 51 125	4 12396 0 1604 0 110000 0 13000 0 5089 9 704 0 2903 0 1124 7 3.3	1	900 84100 7080 950 341 690 420	410 27100 2108 705 104 314	
DEPTH (feet)  TOTAL (units)  C1 (ppm)  C2 (ppm)  C3 (ppm)  C4 (ppm)  NC4 (ppm)  NET INCREASE (units)  RATIO (Pk:BG)  OTHER COMMENTS (e.g	12387 480 26000 3000 900 251 710  torquing of bit, sp	12390 1090 85000 10000 2009 410 907 610 2.3	1239 128 8990 1050 361 51 125	4 12396 0 1604 0 110000 0 13000 0 5089 9 704 0 2903 0 1124 7 3.3	1	900 84100 7080 950 341 690 420	410 27100 2108 705 104 314	

11/15/91  FORMATION WASATCH  AVERAGE DRILL RATE BEFORE SHOW	· · · · · · · · · · · · · · · · · · ·	4 1F30				SHOW REPORT #
	A	4-15A2 SU	INDANCE	DEPTH OF SHOW INTERVAL		80
				VERAGE DRILL RATE DURING	12444'-	12450'
AVERAGE DRILL RATE AFTER SHOW		13 min /	ft		REVERS	E BRK- 29 min/ft
		15.5 min /	ft			
SAMDLE DESCRIPTION (114b.						
SAMPLE DESCRIPTION (lithe		regree of porosit	ty, evidence	e of fracturing, fluoresc	ence, cuts )	
12450' SPL 90%SF	H 10%SS	<del></del>				
				!		
SH 50%gn,40rd,10]	ltgy,tr dkg	<u>Y</u>				
				:		
SH ltgn-gygn,rdbr					nod calc,	
slty-occ sbwxy	, ip,occ gr	dg to SLTS	T, NFSC	C,arg		
				1		
SS clr-trnsl-opq,			srt,mcm	nt,consol,sl fr	i,v cly f	il calc cmt,
tr orng grs, N	IFSOC, tr po	ro				
				1		
		· · · · · · · · · · · · · · · · · · ·		:		
	,			1		
V SL INCR IN OIL	IN SPLS		W/-	<del></del>	-11-11-1	
GAS INFORMATION	NO FLA	RES DURING	THIS S	SHOW		
DEPTH (feet)	12444	12448	1245	52		
TOTAL (units)	120	1860	178	80		
C1 (ppm)	6100	135000	12890	00		
C2 ( ppm )	500	18500	1790	00		
C3 (ppm)	150	6900	589	00		
	TR	979	90	)4		
IC4 (ppm)	TR	2500	166	50		
		1				
NC4 (ppm)		1740	166	50		
		1740 15.5	166			

DATE 11 (00 (01	WELL NAME	A ====			·	SHOW REPORT	Γ#
11/20/91 ORMATION		4-15A2 SU		PTH OF SHOW INTERVA	NL	<u> </u>	81
	SATCH w			ERAGE DRILL RATE DUI	12880'-	12884'	
AVERAGE DRILL RATE AFTER SHOW		18 min /		ENAGE DIVILE NATE DO	REVERSE B	RK 22	min / ft
TEN SHOW		15 min /	ft				
CAMBI E DECORIDADA / IM	balanı Arma ındı	4		t to a toul a a thuis			
SAMPLE DESCRIPTION (IIII		regree or porosi	ty, evidence	or tracturing, nuor	escence, cuts )		
12890' SPL 100%S	H tr SS						
SH 70%gn,201tgy,1	Ord.10dkay	frm-sl sf	t.sltv-s	1 sbwxv ip.r	-sl-occ mod	d calc.	
occ sd gr incl		· · · · · · · · · · · · · · · · · · ·					
	,	33		1			
SS clr-trnsl-opq,	vf-f-occ ma	r.sbang-sl	sbrnd.m	srt.mcmt.sl	fri.consol	.clv fil	cmt.
calc,rr orng g						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
		T 1330					
			***************************************	· · · · · · · · · · · · · · · · · · ·			
		<del> </del>	•				
			····				
			<del></del>			**	
SL INCR IN OIL IN	MUD					<u> </u>	
SAS INFORMATION	1'FL	5'FL	4'FL	2'-3'FL			
DEPTH (feet)	12880	12883	12885	12888			
OTAL (units)	2650	3520	3110	2880			
C1 (ppm)	149110	190100	164352	153600			
	30007	36864	33177	30720			
C3 (ppm)	16070	21696	19526	18080		1	
C4 (ppm)	2008	2745	2471	2288			
NC4 (ppm)	5618	6854	6168	5712			
NET INCREASE ( units )		870	460	230			
RATIO (Pk:BG)		1.3	1.2	1.0			
	1				· • · · · · · · · · · · · · · · · · · ·	<u> </u>	<u>k</u>
OTHER COMMENTS (e.g	torquing of bit, s	pikey drill time o	or gas, chanç	es in mud system	)		···
WT IN/OUT 11.4+/	11.0 5	'FL / 3520	u	!		····	
				1			
CORRELATION W / CONTRO	OL WELL(S)						
HIGH TORQ @ 12883	', WORK PIP	E				<u> </u>	
		· · · · · · · · · · · · · · · · · · ·					
RECOMMENDED PACKER S							

2176							
11/21/91	WELL NAME	4-15A2 SU	NDANCE			SHOW REPORT #	82
ORMATION WASATO				DEPTH OF SHOW INTERV	12947'	-12951'	
VERAGE DRILL RATE BEFORE SHOW	W	16 min /		AVERAGE DRILL RATE DU	JRING SHOW	6	min / ft
VERAGE DRILL RATE AFTER SHOW		23 min /	/ ft				
				!			
AMPLE DESCRIPTION (litt	nology, type and o	degree of porosi	ity, evidenc	e of fracturing, fluo	rescence, cuts)		
12950' SPL 70%	SH, 30%SS						
		•					
SH 40%gn,401tgy,10	0rd,10dkgy	frm-sft,	n-sl ca	lc,slty-sbwx	y ip,occ se	d gr incl,N	FSOC
				· · · · · · · · · · · · · · · · · · ·			
SS clr-trnsl, vf-me	gr,sbrnd-sb	ang,psrt,p	cmt, unc	consol,NFSOC,	NO VIS XLS		
<u></u>							
		· · · · · · · · · · · · · · · · · · ·					_
		·····	<del></del>			<del></del>	
					<del></del>		
	<del></del>		<del></del>				
						· · · · · · · · · · · · · · · · · · ·	
			<del></del>				
SL INCR IN OIL IN	MUD						
AS INFORMATION	2'FL	10'FL	3'FI				
EPTH (feet)	12946	12949	1295	52			
OTAL (units)	2510	3700	269	90			
1 (ppm)	135000	229800	17990	00			
2 (ppm)	21009	37510	2509	90			
3 (ppm)	13070	22511	1508				
C4 (ppm)	2504	3510	273				
C4 (ppm)	7011	8390	734				
ET INCREASE (units)		1190	18		_		
ATIO (Pk:BG)		1.5	1.				
Allo (TR. DG)		1 1.5			!		
THER COMMENTS (e.g	torquing of bit, s	pikey drill time o	or gas, cha	nges in mud system	' 1)		
WT IN/OUT 11.4/		·					
		<del></del>	· · · · · · · · · · · · · · · · · · ·				<del>_</del>
ORRELATION W / CONTRO	L WELL (S)						
LOST 132 bbls mud	@ 12950'	LOST CIRC					
					<del>, , , , , , , , , , , , , , , , , , , </del>		
					· · · · · · · · · · · · · · · · · · ·		
ECOMMENDED DACKED &	CAT				1		

RECOMMENDED PACKER SEAT

FORM 25 - 767 (1)		S	HOW REPO	RT			
11/24/91	WELL NAME	4-15A2 SUND	ANCE			SHOW REPORT #	83
ORMATION W200			DEPTH	OF SHOW INTERVAL	13123'-	13134'	
VERAGE DRILL RATE BEFORE SHO	DW W	13 min /		GE DRILL RATE DURI	NG SHOW	23	min / ft
VERAGE DRILL RATE AFTER SHOV	v	16 min /		reverse	Drk		11111711
		10 111117	IL	1 1			
SAMPLE DESCRIPTION (III	thology, type and	degree of porosi	ty, evidence of f	racturing, fluore	scence, cuts)		
13140' SPL 80%	SH 20%SS						
				1			
SH 50%ltgy,50%dkg	gy,tr BN &	GN frm	-sft,n-sl-	occ mod ca	lc,sl slty	-occ sbwxy	ip,
dkgy-fiss ip,	NFSOC						
	· · · · · · · · · · · · · · · · · · ·					· · · · · · · · · · · · · · · · · · ·	
SS clr-ltgy,vf-mg	gr,sbang-sl	sbrnd,psrt	p-mcmt,v	fri-fri,co	nsol,rr gl	auc,cly fi	1
calc cmt,SPTT			<del></del>				
v sl tr lt str		<del></del>					
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			· · · · · · · · · · · · · · · · · · ·		
					<u> </u>		
	· · · · · · · · · · · · · · · · · · ·					·	
MOD INCR IN GN O	IL IN MUD/S	PLS					
GAS INFORMATION	6'FL	8'FL	12'FL	18'FL	18'-19'	स्य.	19'FL
DEPTH (feet)	13120	13124	13127	13131	13133	13134	13136
FOTAL (units)	3200	3700	4150	5200	5250	5275	5400
C1 (ppm)	161010	150720	159980	172800	175980	178100	185600
C2 (ppm)	36010	43001	50073	62720	63980	64019	73920
C3 (ppm)	12509	28147	35079	46080	47971	48099	56320
C4 (ppm)	3511	4007	4602	5280	5498	5610	7111
NC4 (ppm)	6601	7214	9087	13440	14791	15010	18471
NET INCREASE ( units )		500	950	2000	2050	2075	2200
RATIO (Pk:BG)		1.2	1.3	1.6	1.64	1.65	1.68
(1. K. DG)							
OTHER COMMENTS (e.g	. torquing of bit, s	spikey drill time o	or gas, changes	in mud system )			
WI IN/OUT 11.3+	/10.6 w/ 52	 00u	11.3+/10.3	w/ 5400u	<del></del>		
		· · · · · · · · · · · · · · · · · · ·		<u> </u>			
				<del></del>			
CORRELATION W / CONTRO	DL WELL(S)			<u></u>			
NO VIS FRACG IN S	SPLS						
CHK FOR FLO @ 131	143' - NO F	LO					
· · · · · · · · · · · · · · · · · · ·				1		· · · · · · · · · · · · · · · · · · ·	

11/26/91 FORMATION	WELL NAME 4-15			'	SHOW REPORT #	
FORMATION	4-13	A2 SUNDANCE	·	I	84	
WASATCH			DEPTH OF SHOW I		-13288'	
	BEFORE SHOW		DURING SHOW		AFTER SHOW	
AVERAGE DRILL RATE	DEFORE QUOM	14 MIN/FT	BUBING GUOW	8.5 MIN/FT	11	MIN/
AVERAGE OF TOTAL GAS	BEFORE SHOW 4	700 UNITS	DURING SHOW	6000 UNITS	AFTER SHOW 5920	UNI
SAMPLE DESCRIPTION (II	ithology, type and deg	ree of porosity, evide	nce of fracturing, flu	orescence, cuts)		
13290' SPL 90%	SH 10%SS					
SH 50%dkgy,40ltg	y,10bn, frw	-sl sft,sl s	slty,sl-occ	mod calc,occ	sbwxy ip, NFSOC	
SS clr-ltgy,occ	trnsl,vf-fgr,	occ mgr,sban	g-sl sbrnd,	msrt,m-pcmt,5	O%unconsol, mod	
calc,sl cly f	il cmt,V SL T	R DUL YEL FI	OR, NO STRMG	CUT, MOD MLKY	POOL, MOD BRI	
RES RNG, no ap	p stng,fr por	<u></u>				
GAS INFORMATION	10'FL	14'FL	14'FL	15'FL	10'FL intermi	<u>t</u>
DEPTH (FEET)	13280	13283	13286	13288	13290	
DRILL RATE (MIN/FT)	14	8.5	10.5	11	11	<u>-</u>
TOTAL GAS (UNITS)	4700	5920	5970	6000	5920	
C1 (PPM)	269891	288000	270100	256007	279900	
C2 (PPM)	57110	97100	97891	99520	95998	
C3 (PPM)	32411	60800	61100	63098	60978	
IC4 (PPM)	2647	7200	7359	7850	7210	
NC4 (PPM)	9198	17500	17770	18191	17611	
NET INCREASE (UNITS)		1220	1270	1300	1220	
RATIO (PK: BG)		1.25	1.27	1.28	1.25	
				ı		
OTHER COMMENTS (e.g	torquing of bit, spike	y drill time or gas, cha	anges in mud syster	n, oil on pits)		
ABNT (YEL GN B	N) oil in mud	, (sl incr	from before	show		
OIL IN MUD - 8	% before show	7				
NO EVIDNO OF T	ORQ					
				i	······································	
CORRELATION WITH CON	ITROL WELL(S)			i I		
				<del>-</del>		
MUD WEIGHT	12.4	OUT/ 11.1		:		

DEPTH OF SHOW INTERVAL   13328'-13340'	DATE	WELL NAME				SHOW REPORT #	
### WASANCH   13328 - 13340		4-	-15A2 SUNI		ı	85	
AVERAGE CRILL RATE  AVERAGE OF TOTAL CAS  BEFORE SHOW  2700  UNITS  DURING SHOW  4960  UNITS  AFTER SHOW  4200  UNITS  AFTER SHOW  4200  UNITS  AFTER SHOW  4200  UNITS  AFTER SHOW  4200  UNITS  AFTER SHOW  4200  UNITS  SAMPLE DESCRIPTION (Whology, type and degree of porosibly, evidence of fracturing, fluorescence, cute)  13340' SPL 80%SH, 20%LS  SH 50%Ltgy, 40dkgy, 10bn, frm-sft, mod calc, occ lmy, occ vltgy SH-mshy/v sft, NFSOC  LS dkbn, crpxln, hd, dns, sl sdy, arg ip, MOD BRI YEL FLOR, NO STRMG CUT, FR MLXY POOL,  MOD BRI YEL RES RNG, no vis poro/stn, tr lrg fros/wh qtz xls  GAS INFORMATION  2'FL 4'FL 5'FL 4'FL  DEPH (FEET)  13328  13334  13337  13340  DRILL PATE (MNNFT)  13 18 9 17  TOTAL GAS (UNITS)  2700  4465  4960  4200  CI (FPM)  110000  2650000  320010  227090  CC (FPM)  40009  63011  71000  58027  CC (FPM)  2904  3690  4724  3910  NC4 (FPM)  2904  3690  4724  3910  NC4 (FPM)  7011  9601  11091  9397  NCT INCREASE (UNITS)  1765  2260  1500  NCH INCREASE (UNITS)  NO XLS IN SPL  NO EVIDNO OF TORQ  CORRELATION WITH CONTROL WELL(S)				DEPTH OF SHOW I		B'-13340'	
AVERAGE OF TOTAL GAS    BEFORE SHOW	AVERAGE DRILL RATE	BEFORE SHOW	16	DURING SHOW	9		
SAMPLE DESCRIPTION   (illibology, type and degree of porceity, evidence of fracturing, fluorescence, cutab)   13340' SPI			MIN/FT	DURING SHOW	MIN/FT		MIN/F
13340' SPL   80%SH, 20%LS   SH 50%1tgy,40dkgy,10bn, frm-sft,mod calc,occ lmy,occ vitgy SH-mshy/v sft, NFSOC	AVERAGE OF TOTAL GAS		2700 UNITS		<b>4960</b> UNITS	4200	UNIT
13340' SPI, 80%SH, 20%LS   SH 50%Ltgy,40dkgy,10bn, frm-sft,mod calc,occ lmy,occ vltgy SH-mshy/v sft, NFSOC	SAMPLE DESCRIPTION (	lithology, type and deg	ree of porosity, evide	nce of fracturing, flu	orescence, cuts)		
LS dkbm, crpxln,hd,dns,sl sdy,arg ip, MOD BRI YEL FLOR, NO STRMG CDT, FR MLKY POOL,  MOD BRI YEL RES RNG,no vis poro/stn,tr lrg fros/wh qtz xls  GAS INFORMATION 2'FL 4'FL 5'FL 4'FL  DEPTH (FEET) 13328 13334 13337 13340   DRILL RATE (MIN/FT) 13 18 9 17  TOTAL AGS (UNITS) 2700 4465 4960 4200   CI (PPM) 110000 265000 320010 227090   CI (PPM) 40009 63011 71000 58027   CI (PPM) 40009 63011 71000 58027   CI (PPM) 24010 34090 36990 30140   CI (PPM) 2904 3690 4724 3910   NC4 (PPM) 2904 3690 11091 9397   NC4 (PPM) 7011 9601 11091 9397   NC5 (INCR IN OIL IN MUD (YEL GN EN)   NO XLS IN SPL   NO EVIDNC OF TORQ  CORRELATION WITH CONTROL WELL(S)							
MOD BRI YEL RES RNG, no vis poro/stn, tr lrg fros/wh qtz xls  GAS INFORMATION 2'FL 4'FL 5'FL 4'FL  DEPTH (FEET) 1332B 13334 13337 13340  DEBIL RATE (MIN/FT) 13 18 9 17  TOTAL GAS (UNITS) 2700 4465 4960 4200  CI (PPM) 110000 265000 320010 227090  C2 (PPM) 40009 63011 71000 58027  C3 (PPM) 24010 34090 36990 30140  IC4 (PPM) 2904 3690 4724 3910  NC4 (PPM) 7011 9601 11091 9397  NCT INCREASE (UNITS) 1765 2260 1500  BATIO (PK BG) 1.65 1.83 1.56   OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDING OF TORQ  CORRELATION WITH CONTROL WELL(S)	SH 50%1tgy,40d	kgy,10bn, fr	m-sft,mod ca	lc,occ lmy,o	cc vltgy SH-	mshy/v sft, NFSOC	
MOD BRI YEL RES RNG, no vis poro/stn, tr lrg fros/wh qtz xls  GAS INFORMATION 2 °FL 4 °FL 5 °FL 4 °FL  DEPTH (FEET) 1332B 13334 13337 13340  DEBLIC RATE (MIN/FT) 13 18 9 17  TOTAL GAS (UNITS) 2700 4465 4960 4200  CI (FPM) 110000 265000 320010 227090  C2 (FPM) 40009 63011 71000 58027  C3 (FPM) 24010 34090 36990 30140  IC4 (FPM) 2904 3690 4724 3910  NC4 (FPM) 7011 9601 11091 9397  NCT INCREASE (UNITS) 1765 2260 1500  RATIO (FK BG) 1.65 1.83 1.56   OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDNO OF TORQ  CORRELATION WITH CONTROL WELL(S)							
GAS INFORMATION 2 'FL 4'FL 5'FL 4'FL  DEPTH (FEET) 13328 13334 13337 13340  DRILL RATE (MINFT) 13 18 9 17  TOTAL GAS (UNITS) 2700 4465 4960 4200  C1 (PPM) 110000 265000 320010 227090  C2 (PPM) 40009 63011 71000 58027  C3 (PPM) 24010 34090 36990 30140  IC4 (PPM) 2904 3690 4724 3910  NC4 (PPM) 7011 9601 11091 9397  NET INCREASE (UNITS) 1765 2260 1500  RATIO (PK: B4) 1.65 1.83 1.56   OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDNC OF TORQ  CORRELATION WITH CONTROL WELL(S)	LS dkbn,crpxln	hd,dns,sl sd	y,arg ip,MOD	BRI YEL FLO	R,NO STRMG C	UT, FR MLKY POOL,	<del></del>
DEPTH (FEET)  13328  13334  13337  13340  DRILL RATE (MIN/FT)  13  18  9  17  TOTAL GAS (UNITS)  2700  4465  4960  4200  C1 (PPM)  110000  265000  320010  227090  C2 (PPM)  40009  63011  71000  58027  C3 (PPM)  24010  34090  36990  30140  IC4 (PPM)  2904  3690  4724  3910  NC4 (PPM)  7011  9601  11091  9397  NET INCREASE (UNITS)  1765  2260  1500  RATIO (PK: BG)  1.65  1.83  1.56   OTHER COMMENTS  (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDING OF TORQ  CORRELATION WITH CONTROL WELL(S)	MOD BRI YEL	RES RNG, no v	is poro/stn,	tr lrg fros/	wh qtz xls		<del>,</del>
DEPTH (FEET)  13328  13334  13337  13340  DRILL RATE (MIN/FT)  13  18  9  17  TOTAL GAS (UNITS)  2700  4465  4960  4200  C1 (PPM)  110000  265000  320010  227090  C2 (PPM)  40009  63011  71000  58027  C3 (PPM)  24010  34090  36990  30140  IC4 (PPM)  2904  3690  4724  3910  NC4 (PPM)  7011  9601  11091  9397  NET INCREASE (UNITS)  1765  2260  1500  RATIO (PK: BG)  1.65  1.83  1.56   OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDING OF TORQ  CORRELATION WITH CONTROL WELL(S)							
DEPTH (FEET)  13328  13334  13337  13340  DRILL RATE (MIN/FT)  13  18  9  17  TOTAL GAS (UNITS)  2700  4465  4960  4200  C1 (PPM)  110000  265000  320010  227090  C2 (PPM)  40009  63011  71000  58027  C3 (PPM)  24010  34090  36990  30140  IC4 (PPM)  2904  3690  4724  3910  NC4 (PPM)  7011  9601  11091  9397  NET INCREASE (UNITS)  1765  2260  1500  RATIO (PK BG)  1.65  1.83  1.56   OTHER COMMENTS  (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDING OF TORQ  CORRELATION WITH CONTROL WELL(S)							
DEPTH (FEET)  13328  13334  13337  13340  DRILL RATE (MIN/FT)  13  18  9  17  TOTAL GAS (UNITS)  2700  4465  4960  4200  C1 (PPM)  110000  265000  320010  227090  C2 (PPM)  40009  63011  71000  58027  C3 (PPM)  24010  34090  36990  30140  IC4 (PPM)  2904  3690  4724  3910  NC4 (PPM)  7011  9601  11091  9397  NET INCREASE (UNITS)  1765  2260  1500  RATIO (PK: BG)  1.65  1.83  1.56   OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDING OF TORQ  CORRELATION WITH CONTROL WELL(S)							
DRILL RATE (MIN/FT)  13  18  9  17  TOTAL GAS (UNITS)  2700  4465  4960  4200  C1 (PPM)  110000  265000  320010  227090  C2 (PPM)  40009  63011  71000  58027  C3 (PPM)  24010  34090  36990  30140  IC4 (PPM)  2904  3690  4724  3910  NC4 (PPM)  7011  9601  11091  9397  NET INCREASE (UNITS)  1765  2260  1500  RATIO (PK: BG)  1.65  1.83  1.56   OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDING OF TORQ  CORRELATION WITH CONTROL WELL(S)	GAS INFORMATION	2'FL	4'FL	5'FL	4'FL		
TOTAL GAS (UNITS)  2700  4465  4960  4200  C1 (PPM)  110000  265000  320010  227090  C2 (PPM)  40009  63011  71000  58027  C3 (PPM)  24010  34090  36990  30140  IC4 (PPM)  2904  3690  4724  3910  NC4 (PPM)  7011  9601  11091  9397  NET INCREASE (UNITS)  1765  2260  1500  RATIO (PK: BG)  1.65  1.83  1.56   OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDNO OF TORQ  CORRELATION WITH CONTROL WELL(S)	DEPTH (FEET)	13328	13334	13337	13340		
C1 (PPM) 110000 265000 320010 227090 C2 (PPM) 40009 63011 71000 58027 C3 (PPM) 24010 34090 36990 30140 C4 (PPM) 2904 3690 4724 3910 C4 (PPM) 7011 9601 11091 9397 C5 C5 C5 C5 C5 C5 C5 C5 C5 C5 C5 C5 C5	DRILL RATE (MIN/FT)	13	18	9	17		
A0009   A000	TOTAL GAS (UNITS)	2700	4465	4960	4200		······································
C3 (PPM) 24010 34090 36990 30140  IC4 (PPM) 2904 3690 4724 3910  NC4 (PPM) 7011 9601 11091 9397  NET INCREASE (UNITS) 1765 2260 1500  RATIO (PK: BG) 1.65 1.83 1.56  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDNC OF TORQ  CORRELATION WITH CONTROL WELL(S)	C1 (PPM)	110000	265000	320010	227090		
104 (PPM)   2904   3690   4724   3910   104 (PPM)   7011   9601   11091   9397   1765   2260   1500   1500   165   1.83   1.56	C2 (PPM)	40009	63011	71000	58027		
NC4 (PPM)   7011   9601   11091   9397	C3 (PPM)	24010	34090	36990	30140		
NET INCREASE (UNITS)	IC4 (PPM)	2904	3690	4724	3910		
THER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDNC OF TORQ  CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT IN/ 12.7 OUT/ 12.0	NC4 (PPM)	7011	9601	11091	9397		
OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDING OF TORQ  CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7 OUT/ 12.0  FLARE	NET INCREASE (UNITS)		1765	2260	1500		
SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDING OF TORQ  CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7 OUT/ 12.0  FLARE	RATIO (PK: BG)		1.65	1.83	1.56		
SL INCR IN OIL IN MUD (YEL GN BN)  NO XLS IN SPL  NO EVIDING OF TORQ  CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7 OUT/ 12.0  FLARE							
NO XLS IN SPL  NO EVIDIC OF TORQ  CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT IN/ 12.7 OUT/ 12.0  FLARE	OTHER COMMENTS (e.g.	torquing of bit, spike	y drill time or gas, cha	anges in mud systen	n, oil on pits)		
CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7 OUT/ 12.0  FLARE	•	SL INCR	IN OIL IN MU	D (YEL GN BI	4)		
CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7 OUT/ 12.0  FLARE		NO XLS I	N SPL				
CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7 OUT/ 12.0  FLARE		NO EVIDN	C OF TORQ				
MUD WEIGHT  IN/ 12.7 OUT/ 12.0  FLARE							
MUD WEIGHT  IN/ 12.7 OUT/ 12.0  FLARE	CORRELATION WITH CO	NTROL WELL(S)					
IN/ 12.7 OUT/ 12.0							
IN/ 12.7 OUT/ 12.0						**************************************	
IN/ 12.7 OUT/ 12.0				`			
IN/ 12.7 OUT/ 12.0			······································				
FLARE	MUD WEIGHT	12.7	OUT/ 12-0				· · · · · · · · · · · · · · · · · · ·
DEFADEL / DUDNAL 3 APPERL M	FLARE		DURING/ 5'	AFTER/	4'	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·

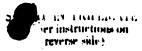
DATE	WELL NAME					SHOW REPORT	f	
11/27/91	4-15	SA2 SUNDAN					86	
FORMATION WASA	TCH		DEPTH OF SHOW	W INTERVAL	13360	'-13366'		
	BEFORE SHOW		DURING SHOW		13300	AFTER SHOW		
AVERAGE DRILL RATE		16 MIN/FT		13	MIN/FT		18	MIN/FT
AVERAGE OF TOTAL GAS	BEFORE SHOW	3360 <sub>UNITS</sub>	DURING SHOW	4640	UNITS	AFTER SHOW	4160	UNITS
						· · · · · · · · · · · · · · · · · · ·		
SAMPLE DESCRIPTION	<del> </del>	gree of porosity, evide	ence of fracturing,	fluorescence, o	cuts)			
13370' SPL 90%	SS, 10%SH		·					
SH 80%bn,101tgy,	10dkgy SH	bn,frm-mod h	d,v lmy,sl	slty-sdy	ip,N	FSOC	·	
SS lty-ltmgy,fg	r,sbang-ang,v	srt,p-mcmt,f	ri-mod fri	,consol,	nod gl	auc,abnt 1	rg	
dk carb incl	,mod calc,sl	cly fil cmt,	calcitic i	p,BRI YEI	GN FL	OR, SLO WK		
STRMG CUT,MC	D MLKY POOL,	OD BRI YEL R	ES RNG, tr/	fr poro,	o vis	stng,no x	ls	
				- · · · · · · · · · · · · · · · · · · ·				
GAS INFORMATION	3'FL	15'FL	10'FL	ī				
DEPTH (FEET)	13358	13363	13367					
DRILL RATE (MIN/FT)	20	13	18					
TOTAL GAS (UNITS)	3360	4640	4160					
C1 (PPM)	144000	143900	156800		·			
C2 (PPM)	35840	62720	49280					
C3 (PPM)	24320	43520	32010	1				
IC4 (PPM)	3200	5088	4841				<del>                                     </del>	
NC4 (PPM)	8960	13440	12320					
NET INCREASE (UNITS)		1280	800					<del></del>
RATIO (PK: BG)		1.38	1.24					
						<u> </u>		
OTHER COMMENTS (e.g	torquing of hit onike	ov drill time or goe, oh	angoe in mud eve	tom oil on nite)				
MOD INCR IN OIL			anges in midd sys	terri, on on pits,			·····	
MOD INCK IN OIL	TH HOD (IEL (	JN DN)					····	
								<del></del>
NO TORQ INDICATI	ON	· · · · · · · · · · · · · · · · · · ·						
				İ				
CORRELATION WITH CO	NTROL WELL(S)							
MUD WEIGHT IN/	12.9	OUT/ 12.2						
FLARE BEF	ORE/ 3"	DURING/ 15 *	AFTER/	10'				

AVERAGE OF TOTAL GAS  BEFORE SHOW  10.5  MIN/FT  DURING SHOW  8.5  MIN/FT  DURING SHOW  AFTER SHOW  AFTER SHOW  AFTER SHOW  AFTER SHOW  AFTER SHOW  AFTER SHOW  20.70	12/2/91	WELL NAME	5A2 SUNDANCE			SHOW REPORT #	
AVERAGE DRILL RATE    BEFORE SHOW   10.5   MINOT   DURING SHOW   8.5   MINOT   AFTER SHOW   11.5   MINOT   AVERAGE OF TOTAL GAS	FORMATION WASATO	H		DEPTH OF SHOW	INTERVAL 13668	L'-13680'	
AVERAGE CRILL RATE  AVERAGE OF TOTAL GAS  BEFORE SHOW  2610  UNITS  BEFORE SHOW  2610  UNITS  BEFORE SHOW  2610  UNITS  BEFORE SHOW  2610  UNITS  BEFORE SHOW  2610  UNITS  BEFORE SHOW  2610  UNITS  SAMPLE DESCRIPTION (Whology, type and degree of porceally, evidence of facturing, fluorescence, outs)  13680' SPL  808SLT, 208SS  SH 5081tgy, 30%4dkgy, 20%gn, tr rd  mod sft, carb ip, mod calc-lmy ip, sl slty- occ grdg to SLTST, NO FLOR, FNT DUL MLKY POOL & RES RNG  SS clr-ltgy, vf-fgr, sbang-sbrnd, wsrt, momt, sl fri-fri, consol, cly fil calc cmt, s6p  ip, v SPITY DUL YEL FLOR, NO STRMC CUT, FNT MLKY POOL & RES RNG, no vis stng,  0-tr poro  GAS INFORMATION  2' FL 3'FL 3'FL  3'FL 3'FL  GEFORE GANNITS  13680  13671  13680  13710  13680  13710  185600  148800  22 (PPM)  137101  185600  148800  23877  28009  26880  2400  14790  1599  1599  2890  2640  14790  MCL (PPM)  1599  2890  2640  1-119  109  OTHER COMMENTS (e.g., brouding of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN TELCRIN OIL IN MUD  NO FRAC INDICATION  POOR SHOW  CORRELATION WITH CONTROL WELL(S)				DURING SHOW			
AMERIAGE OF TOTAL GAS  2610  UNITS  3120  UNITS  2870  UNITS  3120  UNITS  2870  UNITS  3120  UNITS  2870  UNITS  3120  UNITS  2870  UNITS  3120  UNITS  2870  UNITS  3120  UNITS  2870  UNITS  3120  UNITS  2870  UNITS  3120  UNITS  2870  UNITS  3120  UNITS  2870  UNITS  3120  UNITS  2870  UNITS  3120  UNITS  2870  UNITS  3120  UNITS  2870  UNITS  3120  UNITS  2870  UNITS  3120  UNITS  3121  UNITS  UNITS  3121  UNITS  3121  UNITS  3121  UNITS  3121  UNITS  3121  UNITS  3121  UNITS  UNITS  UNITS  3121  UNITS  3121  UNITS  3121  UNITS  UNITS  UNITS  UNITS  UNITS  3121  UNITS  UN	AVERAGE DRILL RATE		10.5 MIN/FT		8.5 MIN/FT	11.5	MIN/FT
13680	AVERAGE OF TOTAL GAS	· 1	2610 UNITS	DURING SHOW	3120 UNITS	2070	UNITS
13680	SAMPLE DESCRIPTION	(lithology, type and deg	ree of porosity, evide	nce of fracturing, fl	uorescence, cuts)		
OCC Grdg to SLTST, NO FLOR, FNT DUL MLKY POOL & RES RNG  SS clr-ltgy, vf-fgr, sbang-sbrnd, wsrt, mcmt, sl fri-fri, consol, cly fil calc cmt, s&p  ip, V SPTTY DUL YEL FLOR, NO STRMG CUT, FNT MLKY POOL & RES RNG, no vis stng,  O-tr poro  GASINFORMATION 2' FL 3'FL 3'FL  DEPTH (FEET) 13668 13671 13680							
SS clr-ltgy,vf-fgr,shang-sbrnd,wsrt,mcmt,sl fri-fri,consol,cly fil calc cmt,s&p ip,V SPTTY DUL YEL PLOR,NO STRMG CUT,FNT MLKY POOL & RES RNG,no vis stng, O-tr poro	SH 50%1tgy,30%dk	gy,20%gn,tr r	d mod	sft,carb ip	, mod calc-lmy	ip,sl slty-	
The comments   The control of the spikey drill time or gas, changes in mud system, oil on pits)   The corrections with Control well(s)   The corrections with Control well well well well well well well we	occ grdg to	SLTST, NO FLO	R,FNT DUL ML	KY POOL & R	ES RNG		
The comments   The control of the spikey drill time or gas, changes in mud system, oil on pits)   The corrections with Control well(s)   The corrections with Control well well well well well well well we	SS clr-ltgy,vf-f	gr,sbang-sbrn	d,wsrt,mcmt,	sl fri-fri,	consol, cly fi	l calc cmt,s&p	
CAS INFORMATION   2' FL   3'FL   3'FL   3'FL	ip,V SPTTY DU	L YEL FLOR, NO	STRMG CUT,F	NT MLKY POO	L & RES RNG, n	o vis stng,	
DEPTH (FEET)  13668 13671 13680  DRILL PATE (MIN/FT) 10.5 8.5 11.5  TOTAL GAS (UNITS) 2610 3120 2870  C1 (PPM) 137101 185600 148800  C2 (PPM) 23987 28009 26880  C3 (PPM) 13649 15840 14790  IC4 (PPM) 1599 2890 2640  NC4 (PPM) NC4 (PPM) 4297 6401 5980  NET INCREASE (UNITS) 510 260  CTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN YELGNBN OIL IN MUD  NO FRAC INDICATION  POOR SHOW  MUD WEIGHT IN 12.7+ OUT/ 12.2  FLARE	0-tr poro						
DEPTH (FEET)  13668 13671 13680  DRILL PATE (MIN/FT) 10.5 8.5 11.5  TOTAL GAS (UNITS) 2610 3120 2870  C1 (PPM) 137101 185600 148800  C2 (PPM) 23987 28009 26880  C3 (PPM) 13649 15840 14790  IC4 (PPM) 1599 2890 2640  NC4 (PPM) NC4 (PPM) 4297 6401 5980  NET INCREASE (UNITS) 510 260  CTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN YELGNBN OIL IN MUD  NO FRAC INDICATION  POOR SHOW  MUD WEIGHT IN 12.7+ OUT/ 12.2  FLARE							
DEPTH (FEET)  13668 13671 13680  DRILL PATE (MIN/FT) 10.5 8.5 11.5  TOTAL GAS (UNITS) 2610 3120 2870  C1 (PPM) 137101 185600 148800  C2 (PPM) 23987 28009 26880  C3 (PPM) 13649 15840 14790  IC4 (PPM) 1599 2890 2640  NC4 (PPM) NC4 (PPM) 4297 6401 5980  NET INCREASE (UNITS) 510 260  CTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN YELGNBN OIL IN MUD  NO FRAC INDICATION  POOR SHOW  MUD WEIGHT IN 12.7+ OUT/ 12.2  FLARE							
DRILL PATE (MIN/FT) 10.5 8.5 11.5  TOTAL GAS (UNITS) 2610 3120 2870  C1 (PPM) 137101 185600 148800  C2 (PPM) 23987 28009 26880  C3 (PPM) 13649 15840 14790  IC4 (PPM) 1599 2890 2640  NC4 (PPM) 4297 6401 5980  NET INCREASE (UNITS) 510 260  RATIO (PK: BG) 1.19 1.09  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN YELGRBN OIL IN MUD  NO FRAC INDICATION  POOR SHOW  CORRELATION WITH CONTROL WELL(S)	GAS INFORMATION	2' FL	3'FL	3'FL			
TOTAL GAS (UNITS)  2610  3120  2870  C1 (PPM)  137101  185600  148800  C2 (PPM)  23987  28009  26880  C3 (PPM)  13649  15840  14790  IC4 (PPM)  1599  2890  2640  NC4 (PPM)  4297  6401  5980  NET INCREASE (UNITS)  510  260  RATIO (PK: BG)  C1 IN YELGNEN OIL IN MUD  NO FRAC INDICATION  POOR SHOW  CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7+  OUT/ 12.2  FLARE	DEPTH (FEET)	13668	13671	13680			
C1 (PPM) 137101 185600 148800	DRILL RATE (MIN/FT)	10.5	8.5	11.5	i		
C2 (PPM) 23987 28009 26880  C3 (PPM) 13649 15840 14790  IC4 (PPM) 1599 2890 2640  NC4 (PPM) 4297 6401 5980  NET INCREASE (UNITS) 510 260  RATIO (PK: BG) 1.19 1.09  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN YELGNEN OIL IN MUD  NO FRAC INDICATION  POOR SHOW  CORRELATION WITH CONTROL WELL(S)	TOTAL GAS (UNITS)	2610	3120	2870			
C3 (PPM) 13649 15840 14790  IC4 (PPM) 1599 2890 2640  NC4 (PPM) 4297 6401 5980  NET INCREASE (UNITS) 510 260  RATIO (PK: BG) 1.19 1.09  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN YELGNEN OIL IN MUD  NO FRAC INDICATION  POOR SHOW  CORRELATION WITH CONTROL WELL(S)	C1 (PPM)	137101	185600	148800			
1599   2890   2640	C2 (PPM)	23987	28009	26880	1		
NC4 (PPM)	C3 (PPM)	13649	15840	14790			
NET INCREASE (UNITS)  510  260  RATIO (PK: BG)  1.19  1.09  OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN YELGNBN OIL IN MUD  NO FRAC INDICATION  POOR SHOW  CORRELATION WITH CONTROL WELL(S)	IC4 (PPM)	1599	2890	2640			
OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN YELGNBN OIL IN MUD  NO FRAC INDICATION  POOR SHOW  CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7+ OUT/ 12.2	NC4 (PPM)	4297	6401	5980			
OTHER COMMENTS (e.g torquing of bit, spikey drill time or gas, changes in mud system, oil on pits)  SL INCR IN YELGNBN OIL IN MUD  NO FRAC INDICATION  POOR SHOW  CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7+ OUT/ 12.2	NET INCREASE (UNITS)		510	260			
SL INCR IN YELGNBN OIL IN MUD  NO FRAC INDICATION  POOR SHOW  CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7+ OUT/ 12.2  FLARE	RATIO (PK: BG)		1.19	1.09			
SL INCR IN YELGNBN OIL IN MUD  NO FRAC INDICATION  POOR SHOW  CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7+ OUT/ 12.2  FLARE							
NO FRAC INDICATION  POOR SHOW  CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7+ OUT/ 12.2  FLARE	OTHER COMMENTS (e.g	torquing of bit, spike	y drill time or gas, cha	anges in mud syste	em, oil on pits)		
CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7+ OUT/ 12.2  FLARE	SL INCR IN YELG	NBN OIL IN MU	D		i		
CORRELATION WITH CONTROL WELL(S)  MUD WEIGHT  IN/ 12.7+ OUT/ 12.2  FLARE	NO FRAC INDICAT	ION					
MUD WEIGHT  IN/ 12.7+ OUT/ 12.2  FLARE	POOR SHOW				ì		
MUD WEIGHT  IN/ 12.7+ OUT/ 12.2  FLARE					1		
IN/ 12.7+ OUT/ 12.2	CORRELATION WITH CO	NTROL WELL(S)					
IN/ 12.7+ OUT/ 12.2							
IN/ 12.7+ OUT/ 12.2							
IN/ 12.7+ OUT/ 12.2							
IN/ 12.7+ OUT/ 12.2							
FLARE	IN/	12.7+	OUT/ 12.2				
	FLARE BEFO	ORE/ 21		AFTER/	3'		

12/5/91	WELL NAME 4-15	5A2 SUNDANCE		ı		SHOW REPORT	88	
FORMATION WASA	TCH TFL		DEPTH OF SHOW	INTERVAL	13970'			
	BEFORE SHOW	<del></del>	DURING SHOW			AFTER SHOW		
AVERAGE DRILL RATE		16 MIN/FT		13	MIN/FT		15	MIN/FT
AVERAGE OF TOTAL GAS	S BEFORE SHOW	2890 UNITS	DURING SHOW	4480	UNITS	AFTER SHOW	3200	UNITS
SAMPLE DESCRIPTION	(lithology, type and dec	ree of porosity, evide	ence of fracturing, f	luorescence,	cuts)			
SHOW SPL	80%SH, 10%SS,	, 10%LS						
SH 50%dkgy,30%	bn,20%ltgy,tr	rd sft-sl	frm, lmy, sl	ty,carb	ip, NF	SOC		
IS 1t-mbn, micx1	n,hd,dns,sl sl	Lty,NFSOC,arg	, ip					
SS clr-ltgy,fgr	sbang,wsrt,mo	cmt,fri,pred	consol, lrg	carb in	cl,mod	l-v calc,		
	T MLKY POOL,V						stng	
	**************************************		······································					
GAS INFORMATION	1'FL	3'FL	2'FL					
DEPTH (FEET)	13969	13972	13975					
DRILL RATE (MIN/FT)	16	13	15					
TOTAL GAS (UNITS)	2890	4480	3200		****			
C1 (PPM)	219940	223200	192010					
C2 (PPM)	24110	58240	29120					
C3 (PPM)	10540	23040	11520					
IC4 (PPM)	1299	3520	1870					
NC4 (PPM)	3690	7040	4810				1	<u> </u>
NET INCREASE (UNITS)		1590	4810					
RATIO (PK: BG)		1.55	1.11					
			L			<u> </u>		
OTHER COMMENTS (e.g	a torquing of hit snike	y drill time or gas, ch	annee in mud evete	em oil on nits	<b>:</b> )			
MOD TO ABNT GN				m, or on pac				
POOR SPL SHOW								
NO VIS FRAC IN	mTCATODS				···			
NO VID TIME IN	DICATORS						<del></del>	
					ı			
CORRELATION WITH CO	NTROL WELL(S)							
			<u>.</u>		l .			
MUD WEIGHT	10.0				· <del>**                                   </del>			
FLARE IN/		оит/ 11.6			<del> </del>			
BEF	ORE/ 1'	DURING/ 3"	AFTER/	2'	···			

Form OGC-1b

# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES



DIVISION OF OIL.			S. LEASE DES	MATION AND SERIAL NO.
	·	<u> </u>		e Land
SUNDRY NOTICES AND  (Do not use this form for proposals to drill or to the "Application for per			1	ALLOTTES OR TRIES NAME
i. oil to yas			T. UNIT 4985	EMBHT HAMB
WELL X WELL OTHER  2. NAME OF OPERATOR			S. FARM OR I	PARK YAME
Pennzoil Exploration and Pro	duction C	000201		_
3. ADDRESS OF OFFEATOR	ddclion (	Ошрапу	9. WELL NO.	dance
P.O. Box 290; Neola, Utah 8	4053		4-1	5A2
4. LOCATION OF WELL (Report location clearly and in acc See also space 17 below.)	ordance with a	ny State requirements.*	10. FIELD AMI	FOOL, OR WILDCAT
At surface .			Bluebel	1-Wasatch
1600' FNL and 16	ייי איז ליי	CLI NE)	11. ASC., T., E	., M., OE SLK. AND OR ASSA
1000 1111 and 10	· ·	Sw NE)	Sec. 1	5, T1S, R2W
14. PERMIT NO. 15. BLEVATIONS	(Show whether	OF, ST. CR. etc.)	12. COUPTY 0	B PARISH 18. STATE
API 43 013 31333 574	9' (GL)		Duches	ne Utah
1d. Check Appropriate Box	To Indicate	Nature of Notice, Repo	rt, or Other Data	
MOTICE OF INTENTION TO:	***	1	SUBSSQUENT SEPORT OF	:
TEST WATER SHUT-OFF PULL OR ALTER CA	Laina	WATER EMUT-OFF		PAIRING WELL
FRACTURE TREAT MULTIPLE COMPLE	:TE	FRACTURE TREATMEN	T ALT	SEINE CASING
SHOOT OR ACIDIZE ABANDON®		SHOUTING OR ACIDIS	NO A84	WOOMWENT.
REPAIR WELL CHANGE PLANS		(Other) Report	of Drilling O	perations X
(Other)  17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly		1 Completion or	results of multiple con Recompletion Report and	i Log (orm.)
SEE ATTACHED " MONTHLY REP		ILLING OPERATIONS:	COMPLETE"	
· ·		•	•	
18. I hereby certify that the foregoing is true and correct				
SIGNED De Laudhard	TITLE	Petroleum Engir	DATE_	12/13/91
(This space for Federal or State office use)			<u></u>	
APPROVED BY CUMBLE 'S OF APPROVAL, IF ANY:	TITLE		DATE	

#### SUNDANCE 4-15A2

# REPORT OF MONTHLY DRILLING OPERATIONS; COMPLETE FOR THE PERIOD 9/23/91 THRU 12/11/91

- Set 16" conductor pipe at 70'. Cemented with 160 sx. 50/50 Poz.
- Spud well with Forwest Rig # 5 at 1:00 PM, 9/23/91.
- Drilled 13 1/2" hole to 3498' with final mud wt. 10.4 ppg. Mudded up to kill 2"-3"stream water flow at 2287'.
- Ran set 10 3/4" 40.5# surface casing at 3498'. Cemented with 412 sx. HiLift cement (11 ppg., 3.75 yld.) followed by 200 sx. class'G' cem. (15.8 ppg., 1.15 yld.) Full returns throughout job. Circ. 120 bbls. cem. to surface. Bumped plug 12:00 MID 9/29/91. Performed 1" top job at 120' with 100 sx. class'G'.
- Pressure test BOP rams and choke manifold to 5000 psi. Pressure test Hydil BOP to 2500 psi. Drilled out new formation to 3521'. Conducted Formation Leak-Off test to 12.5 ppg. EMW. No leak-off.
- Drilled 9 7/8" hole to 10,723'. Drilled 3521'-9689' with 8.4 ppg. water Final mud wt. at 10,723': 9.1 ppg.
- Ran logs with Schlumberger: Phasor Induction Log 10,722'-3498'

Digital Sonic 10,722'-3498'
Neutron Density 8700'-6200'
Gamma Ray 10,722'-surf.
3 Arm Caliper 10,722'-3498'

- Ran and set 7" 23# S-95 and N-80 casing at 10,722' with DV Tool at 8500'. Cemented with Dowell-Schlumberger. Cemented below DV Tool 8500'-10722' with 475 sx. 50/50 Poz-mix (14.1 ppg., 1.27 yld.) followed by 200 sx. class'G' (15.8 ppg., 1.15 yld.). Cemented above DV Tool 8500'-Surf. with 963 sx. HiLift cem.(11.0 ppg., 3.75 yld.) followed by 685 sx. 50/50 Poz-mix (14.1 ppg., 1.21 yld.) followed by 200 sx. class'G' (15.8 ppg., 1.15 yld.). Bumped plug 5:00 AM, 10/26/91.
- Pressure tested 7" casing to 4000 psi. Drilled new fmt. to 10,739'. Conducted Formation Leak-Off Test to 12.3 ppg. EMW. No leak-off.
- Drilled 6 1/4" hole to 14,010' TD by 12/6/91 with final mud wt.12.9 ppg. Lost total 4107 bbls. mud while drilling 10722'-14010'.
- Ran logs with Schlumberger: Phasor Induction Log, Digital Sonic, GR, and Caliper.
- Ran and set 5" 18" N-80 liner 10355'-13984'. Cemented with Dowell-Schlumberger with 403 sx. class'G'. Full circ. throughout job. Bumped plug 8:30 PM, 12/8/91.
- Released Forwesty Rig # 5 2:00 PM, 12/11/91.

DEC.1 6 1991

DIVISION OF OIL GAS & MINING

# STATE OF TAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING

_	CONFIDENTIAL -
	SUBMIT IN DUPL
	(See other instructions
	on reverse side)

9-23-91 12-6-91 2-2-92 5771 KB, 5770 DF, 5748 GL 5748  10. TOTAL DEFIR, MD & TVD 21. PLUG, BACK T.B., MD & TVD 22. IF MULTIPLE COMPL., 13. INTERVALS BOTANT TOOLS CABLE TOOLS 14,010' 13,953 XX  14. PRODUCTION INTERVAL(S). OF THIS CONFLETION—TOP, BOTTOM. NAME (MD AND TVD)* XX  12.077-13,940 - Wasatch NO  16. TYPE ELECTRIC AND OTHER LOSS BON 1-16-92  SDT, LDT, CNL, Caliper multiple Completed (MD AND TVD). NO  18. CASING RECORD (Report all strings set in well)  19. CASING SIZE WEIGHT, LB./FT. DEPTH NRT (MD) NOLE SIZE CEMENTING RECORD ANOUNT PULLED  10. 3/4" 40.5 # 3498' 13. 1/2 612 SKS  7" 23 # 10,722' 9. 7/8 2,523 SKS  11. LINER RECORD  10. AUGUST (MD) BOTTOM (MD) BACKS CEMENT* SCREEN (MD) SIZE DEPTH SET (MD) PACKER SET (MD)  5" 10,355 13,984 403 SKS  10. PERFORATION RECORD (Interval, 1)2 and number)  SEE ATTACHED  SEE ATTACHED  13.*  PRODUCTION  13.*  PRODUCTION  AND PUMP PULL REAL (MD) AND UNIT AND KIND OF MATERIAL USED  AND PUMP POOLUCING AND AND WEIGH (Producing or 1-27-92 Sub Pump)  PRODUCTION  WELL STATUS (Producing or 1-27-92 Sub Pump)  Producing											EE LA		
TYPE OF COMPLETION:  WILL CONTACTOR  PRINCE OF THE CONTACTOR  PRONOCOLL EXPLORATION AND PRODUCTION COMPANY  2. SAME OF CREATER  P. O. BOX 2967, HOUSTON, TEXAS 77252-2969   4-15.82  P. O. BOX 2967, HOUSTON, TEXAS 77252-2969   4-15.82  A total depth  At to			TION C	R RECO	MPLET	ION I	REPORT	AND LC	)G *	6. 19	INDIAN	, ALLO1	ITSE OR TRIBE NAM
NOTE OF THE PROPERTY OF THE OF			WELL	X WELL		RT [	Other			7. 01	IT AGRI	EMENT	NAME
2. MARK OF OTERATION PENNIZOIL EXPLORATION AND PRODUCTION COMPANY  2. MARKE OF OTERATOR PENNIZOIL EXPLORATION AND PRODUCTION COMPANY  2. MARKE OF OTERATOR P. O. BOX 2967, HOUSEN, TEXAS 77252-29692  4. AT SOUTH TO SELECT TO SEL	NEW (T)			PLCG C		F. ["]							
PENNOTH EXPLORATION AND PRODUCTION COMPANY  3. ADDRESS OF CREATES  P. O. BOX 2967, HOUSTON, Texas 77252-29657.  4. LOCATION OF WILL (Reper Tourseling clearly and in accordance with Army Still requirements)?  4. LOCATION OF WILL (Reper Tourseling clearly and in accordance with Army Still requirements)?  4. LOCATION OF WILL (Reper Tourseling clearly and in accordance with Army Still requirements)?  4. LOCATION OF WILL (Reper Tourseling clearly and in accordance with Army Still requirements)?  4. LOCATION OF WILL (Reper Tourseling clearly and in accordance with Army Still requirements)?  4. LOCATION OF WILL (Reper Tourseling clearly and in accordance with Army Still requirements)?  4. LOCATION OF THE STILL (Reper Tourseling)?  4. PRODUCTION OF THE STILL (Reper Tourseling)?  4. PRODUCTION OF THE STILL (Reper Tourseling)?  5. DATE STILL OF THE CONTROL OF THE CONTROL (Reper all interings set in well)  5. DATE STILL OF THE CONTROL OF THE CONTROL (REPER TOURSeling) AND THE STILL OF THE CONTROL OF THE CON		OVER L		BACK	RES	۷R. ــــا	Other			_1			NAME
3. ADDRESS OF OPERATOR P. O. BOX 2967, HOUSTON, TEXAS 77252-2969. 4. LOCATION OF WELL (Report location dearly and in accordance with phy State requirement). 4. LOCATION OF WELL (Report location dearly and in accordance with phy State requirement). 4. LOCATION OF WELL (Report location dearly and in accordance with phy State requirement).  At top prod. Interval reported below  At total depth  14. Permit No. 14. 19 15 2  15. DATE SPECOND 18. DATE TO. REACHED 17. DATE COMPL. (Report of prod.) 18. SELEVATIONS (Dr. REA. B. W., On BLOCK AND BENT SPECIAL DATE TO BE ACT. B. W., ON BLOCK AND BENT SPECIAL DATE TO BE ACT. B. W., ON BLOCK AND BENT SPECIAL DATE TO BE ACT. B. W., ON BLOCK AND BENT SPECIAL DATE TO BE ACT. B. W., ON BLOCK AND BENT SPECIAL DATE TO BE ACT. B. W. ON BLOCK AND BENT B. W. ON BLOCK B. B. W. ON BLOCK B. B. W. ON BLOCK B. B. W. ON BLOCK B. B. W. ON BLOCK B. B. W. ON BLOCK	PENNZOIL	EXPLORA	A NOITA	ND PRODUC	CTION,C	OMPAN	Υ			1			
At currace 1600' FNL and 1600' FEL  At top prod. Interval reported below  At top prod. Interval reported below  At total depth  14. FERNIT NO.  14. PERNIT NO.  15. DATE SPUDDED 18. DATY TO. RESCRIED 17. DATE CONTL. (Reday to prod.) 18. DATY TO. RESCRIED 17. DATE CONTL. (Reday to prod.) 18. DATY TO. RESCRIED 17. DATE CONTL. (Reday to prod.) 18. DATY TO. RESCRIED 17. DATE CONTL. (Reday to prod.) 18. DATY TO. RESCRIED 17. DATE CONTL. (Reday to prod.) 18. DATY TO. RESCRIED 17. DATE CONTL. (Reday to prod.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (Reday to prod.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (Reday to prod.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. ELECTRORISAD 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.) 19. DATE OF THE CONTL. (REDAY TO.)	3. ADDRESS OF OF	PERATOR			<u>-</u>	<del></del> -	grande, grande de compression	The second second	<del></del>	- 4-	-15A2		
At total depth  At total depth  At total depth    14		-		-		3 6 2 12 1	(1996 <b>)</b> Mar 2. 2. 20 1. 2. 2.		i Q	_i			
At total depth  At total depth	4. LOCATION OF W	itit (Repor 1600' Fi	t location c Viand	learly and in 1600 FFI	accordance	with an	y State requir	ements)*					
At total depth    14. PERNIT NO.   12. COUNTY   12. COUNTY   13. PERNIT NO.   13. STATE   14. OLD   14. STATE   15				1000 / 11		Ģ.	MAR 1 9	1992		1	R AREA		
14. PERNIT NO.   15. DATE SPECIAL   12. COUNTY OF   13. STATE   13. STATE   13. DATE SPECIAL   14. DATE TO. PEACHED   17. PATE CONFT. (Feedy to prod.)   18. ELECTRON (F. REA.)   18. STATE   19. STATE   19. DATE TO. PEACHED   17. PATE CONFT. (F. REA.)   18. ELECTRON (F. REA.)   18. STATE   19		ŧ	orted perow				1-11-511			26	;C. 1	١, وق	15, KZW
3. Date SPUDDED   16. Date to, reached   17. Date court. (Receiv to prod.)   18. Servations (or, rea, etc.)   19. Elect. Cashinghad   19. Date to, neached   17. Date court. (Receiv to prod.)   18. Servations (or, rea, etc.)   19. Elect. Cashinghad   19. Date to, no a to   2-2-92   577   KB, 5770 DF, 5748 SL   574	At total depth	l			-37 TEE	<del></del>	100 100 100			-	00227		13 47.79
5. Date succosed 15. Date 10. Backers 17. Date course. (Reday to prod.) 18. ELEVATIONS (OF JAR. N. T. G., ETC.) 19. ELEV. CARRIERS 29-23-91 12-6-91 2-2-92 5771 KB, 5770 DF, 5748 EL 5748 DE TOLS 14,010 12. PLOO, AACA TO., NO A TOD 22. IF MUCTURE COMPL. 23. DELILIOR BY XX 20. MAIN TOOLS 14,010 13,953 XX 20. MAIN TOOLS 12,077-13,940 - Wasatch NO THE CONFLETION. TOP, BOTTON. NAME (MD AND TYD)* 27. WAS WELL CORED. NO STORY HOLD TO THE CONFLETION TOP, BOTTON. NAME (MD AND TYD)* 27. WAS WELL CORED. NO CASING RECORD (Report all strings set in well)  12. O77-13,940 - Wasatch 10. STAND TOOLS 11. STAND TOOLS 1					// 2	na Q	4_GAS 4		1	P	ABIBH		
9-23-91   12-6-91   2-2-92   5771 KB, 5770 DF, 5748 BL 5748   5748   5740 DF, 5748 BL 5748   5748 DF, 5748 DF	15. DATE SPUDDED	16. DAT	S T.D. REAC	HED   17. DAT	E COMPL.	(Ready to			DF, RKB,				
14,010 1 13,953	9-23-91	<del>    1</del> 2-	-6-91		-2-92			5771 KB,	5770	DF, 5	5748 <sup>-</sup>	GL	
12,077-13,940 - Wasatch  13,077-13,940 - Wasatch  15, TYPE ELECTRIC AND DEPER LOGG BEN NO  16, TYPE ELECTRIC AND DEPER LOGG BEN NO  17,16-92  SDT, LDT, CNL, Caliper ML LOG THAN OF LADUATION, DIGITAL SOLITE  CASING RECORD (Report all strings set in well)  CASING RECORD (Report all strings set in well)  CASING RECORD (Report all strings set in well)  10,3/4" 40,5 # 3498' 13 1/2 612 SKS  7" 23 # 10,722" 9 7/8 2,523 SKS  10,722" 9 7/8 2,523 SKS  11,0,355 13,984 403 SKS  13, PERFORMATION RECORD (Interval. 41: und number)  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  13.* PRODUCTION  NATE FIRST PRODUCTION  NATE FIRST PRODUCTION  PRODUCTION METROS (Flowing, goat Wift, pumping—size and type of pump)  1-27-92  Sub Pump  1-27-92  24  CALCILATED (Producing or asher)  PRODUCTION  TRATE FIRST PRODUCTION  TRATE FIRST PRODUCTION  AND PRESENCE  238 147  147  140 DISPOSITION OF GAS (Sold, used for fuel, reside, etc.)  15. LIST OF ATTACHMENTS  Completion Reports, Logs  15. List of ATTACHMENTS  Completion Reports, Logs  16. I hereby certify that the forefores and type of pump in a she with the properts and type of pump in the pumping of the she with the property of the she with the she with the she with the she with the she with the she with the she with the she with the she with the she with the she with the she with the she with the she with the she with the she with the she wit		D & TVD			TVD 22	JUM 41 . M WOH	TIPLE COMPL.,			ROTA	BY TOOL	L8	CABLE TOOLS
12,077-13,940 - Wasatch  10. TYPE ELECTRIC AND OFFIRE LOGA BUN 1-16-92 SDT, LDT, CNL, Caliper MAN LOS PHANCE INDUCTION DISTRICT OF THE LOCATION RECORD (Report oil strings set in well)  10. ACRING RECORD (Report oil strings set in well)  10. 3/4" 40.5 # 3498' 13. 1/2 612 SKS 7" 23 # 10,722' 9 7/8 2,523 SKS  10. ACID, SHOT RECORD  10. ASSET TOP (MD) BOTTOM (AD) BACKE CEMENT* SCREEN (MD) SIZE DEPTR SET (MD) PACKER SET (MD)  5" 10,355 13,984 403 SKS  11. FERFORATION RECORD (Interval. 42: Und wumber)  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  13.** PRODUCTION METHOD (Plosing, goal K/ft, pumping—size and type of pump) Producing of Salution of Calibration and Control Backer (AD) Size Deptr Set (MD) Producing of Salution of Calibration (Control Backer)  13.** PRODUCTION METHOD (Plosing, goal K/ft, pumping—size and type of pump) Producing of Salution (Control Backer)  13.** PRODUCTION METHOD (Plosing, goal K/ft, pumping—size and type of pump) Producing of Salution (Control Backer)  13.** PRODUCTION METHOD (Plosing, goal K/ft, pumping—size and type of pump)  13.** PRODUCTION METHOD (Plosing, goal K/ft, pumping—size and type of pump)  14.** PRODUCTION METHOD (Plosing, goal K/ft, pumping—size and type of pump)  15.** PRODUCTION METHOD (Plosing of Salution (Control Backer) Producing of Salution (Control Backer)  16.** PRODUCTION METHOD (Plosing of Salution (Control Backer)  16.** PRODUCTION METHOD (Plosing of Salution (Control Backer)  17.** PRODUCTION METHOD (Plosing of Salution (Control Backer)  18.** PRODUCTION METHOD (Plosing of Salution (Control Backer)  18.** PRODUCTION METHOD (Plosing of Salution (Control Backer)  18.** PRODUCTION METHOD (Plosing of Salution (Control Backer)  18.** PRODUCTION METHOD (Plosing of Salution (Control Backer)  18.** PRODUCTION METHOD (Plosing of Salution (Control Backer)  18.** PRODUCTION METHOD (Plosing of Salution (Control Backer)  18.** PRODUCTION METHOD (Plosing of Salution (Control Backer)  18.** PRODUCTION METHOD (Plosing of Sal		ZRVAL(S) C			ROTTOM	NAME ()	(D AND TYP)	=	<del>&gt;</del>	, ,	<u>⟨X</u>	25.	WAS DIRECTIONAL
SDT, LDT, CNL, Caliper multion 7 PHANTIE IAIDULTDA) DISTRAL SOATIC.  SDT, LDT, CNL, Caliper multion 7 PHANTIE IAIDULTDA) DISTRAL SOATIC.  SOATING RECORD (Report all strings set in oet)  CASING RECORD (Report all strings set in oet)  AMOUNT PULLED  10 3/4" 40.5 # 3498" 13 1/2 612 SKS  7" 23 # 10,722" 9 7/8 2,523 SKS  ST 10,355 13,984 403 SKS  ST 10,355 13,984 403 SKS  ST 10,355 13,984 403 SKS  ST 10,355 13,984 403 SKS  ST 10,722" SACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.  DEFTE INTERVAL (MD) ANOUNT AND KIND OF MATERIAL DEED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  AMOUNT PULLED  AMOUNT PULLED  AMOUNT AND KIND OF MATERIAL DEED  SEE ATTACHED  SEE ATTACHED  AMOUNT AND KIND OF MATERIAL DEED  AMERICAN HOLES TESTED CHOCK SIZE PROON, FOR OIL—BBL GAS—MCF. WATER—BBL. QB-GIL BATTO  2-2-92 24 POO'R BATE 238—NCF. WATER—BBL. QB-GIL BATTO  2-2-92 24 OIL—BBL GAS—MCF. WATER—BBL. QB-GIL BATTO  147  M. DISPOSITION OF OAS (Sold, used for fuel, venied, etc.)  SEE ATTACHEMENTS  COMPILETION, REPONLES, LOGS  M. DISPOSITION OF OAS (Sold, used for fuel, venied, etc.)				12 22 2 2011 101	, 501104,								
SDT, LDT, CNL, Caliper Mudico, PHANCE INDUEDOS, DISTRICTOR NO  CASING RECORD (Report all strings set in iself)  CASING RECORD (Report all strings set in iself)  10 3/4" 40.5 # 3498" 13 1/2 612 SKS  7" 23 # 10,722" 9 7/8 2,523 SKS  LINER RECORD  SIZE TOP (MD) BOTTOM (AD) BACKS CEMENT* SCREEN (MD) SIZE DEPTH SET (MD) PACKER SET (MD)  5" 10,355 13,984 403 SKS  SI. FERFORATION RECORD (Interval. 412 and number)  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  TOP TREAT PRODUCTION METROD (Flowing, gas lift, pumping—size and type of pump) Producing or shat-in)  1-27-92 Sub Pump  PACKER SET (Flowing, gas lift, pumping—size and type of pump)  Producing  PRODUCTION  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  TEST PERSON FOR OLL—BEL. GAS—NCF. WATER—BEL. OAB-OIL BATTO  24-BOTE PARSE  238 147  LINE OF ATTACHMENTS  COMPILETION OF GAS (Sold, used for fuel, vented, etc.)  TEST WITNESSED BY  SI. LIST OF ATTACHMENTS  COMPILETION REPORTS, LOGS  SEE ATTACHED TEST WITNESSED BY  SI. LIST OF ATTACHMENTS  COMPILETION REPORTS, LOGS  SEE ATTACHED TEST WITNESSED BY  SI. LIST OF ATTACHMENTS  COMPILETION REPORTS, LOGS  SEE ATTACHED TEST WITNESSED BY  SI. LIST OF ATTACHMENTS  COMPILETION REPORTS AND SET OF SET	12,077-13	3,940 -	Wasatc	h									No
CASING RECORD (Report all strings set in well)  CASING SIZE VEIGHT, LB/FT, DEFTH SET (MD)  10 3/4"  40.5 # 3498!  13 1/2 612 SKS  7"  23 # 10,722"  9 7/8  2,523 SKS  LINER RECORD  SIZE TOP (MD)  BOTTOM (AD)  BOTTOM (AD)  SACKS CEMENTS* SCREEN (MD)  5"  10,355  13,984  403 SKS  30. TUBING RECORD  5"  DEFTH SET (MD)  SIZE DEFTH SET (MD)  FRACTURE, CEMENT SQUEEZE, ETC.  DEFTH INTERVAL (MD)  AMOUNT AND KIND OF MATERIAL USED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  13.*  PRODUCTION  AATE FIRST PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)  AATE FIRST PRODUCTION  AATE FIRST PRODUCTION  AATE OF TEST NOCAS TESTED CHOKE SIZE TEST PRODUCTION  ATTACHED  CHOKE SIZE TEST PRODUCTION  TEST PRODUCTION  AATE TO STATE TO SUBSECUE CALCULATED OIL—BBL. GAS—MCF. WATER—BBL. OAS—OIL BATTO  24-80.72 RATE  238  147  LIBY OF ATTACHMENTS  COMPILETION OF GAS (Sold, used for juel, venied, etc.)  TEST WITNESSED BY  TEST WITNESSED BY  TEST WITNESSED BY  TEST WITNESSED BY  TEST WITNESSED BY  15. LIST OF ATTACHMENTS  COMPILETION REPORTS AND VELICATION OF GAS—OIL BAT WITNESSED BY  15. LIST OF ATTACHMENTS  COMPILETION REPORTS AND VELICATION OF GAS—OIL STATE WITNESSED BY  16. I hereby certify blat the foregoing and veliched information is complete and correct as determined from all available records		· Lame		1-16-92							1	•	
CARING SIZE  WEIGHT, LE/FT. DEPTH SHT (MD)  10 3/4"  40.5 # 3498' 13 1/2 612 SKS  7" 23 # 10,722' 9 7/8 2,523 SKS  LINER RECORD  BIZE TOP (MD) BOTTOM (AD) SACKS CEMENT* SCREEN (MD) SIZE DEPTH SHT (MD)  5" 10,355 13,984 403 SKS  LINER RECORD  SIZE DEPTH SHT (MD) PACKER SHT (MD)  SIZE DEPTH SHT PRODUCTION METHOD (Flowing, goal Nft, pumping—size and type of pump)  AATS FIRST PRODUCTION PRODUCTION METHOD (Flowing, goal Nft, pumping—size and type of pump)  AATS OF THEST HOURS TESTED CHOCK SIZE TEST PERIOD 238 147  LOW. TUBING FREED. CASING PRESSURE CALCULATED OIL—SEL. GAS—MCF. WATER—SEL. QAS—OIL SATIO 147  LOW. TUBING FREED. CASING PRESSURE CALCULATED OIL—SEL. GAS—MCF. WATER—SEL. QAS—OIL SATIO 147  LOW. TUBING FREED. CASING PRESSURE CALCULATED OIL—SEL. GAS—MCF. WATER—SEL. QAS—MCF. WATER—SEL. QAS—MCF. TEST PERIOD 238 147  LOW. TUBING FREED. CASING PRESSURE CALCULATED OIL—SEL. GAS—MCF. WATER—SEL. QAS—MCF. TEST PERIOD 238 147  LIST OF ATTACHMENTS  COMPILETOR REPORTS. LOGS  15. LIST OF ATTACHMENTS  COMPILETOR REPORTS. LOGS  16. I bereby certify bas to be foregoing and vityched information is complete and correct as determined from all available records	SDT, LDT,	, CNL, (	Caliper	mud Lo	S, PHF	SOR	NOUCT	DN,DIG	MAL:	30W	<u>c  </u>		NO
10 3/4" 40.5 # 3498		WEIGI	HT, LB./FT.						MENTING	RECORD		<del></del> i	AMOUNT PULLED
THE PRODUCTION ATTACHMENTS  Completion Reports, Logs  LINER RECORD  SIZE TOP (MD) BOTTOM (AD) BACKS CEMENT* SCREEN (MD) SIZE DEPTH SET (MD) PACKER SET (MD)  SI 10,355 13,984 403 SKS  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SOME PRODUCTION  PRODUCTION	10 3/4"			3498	31	13	1/2	61:	2 SKS			·	
SEE ATTACHED  SE													
SEE ATTACHED  SE											<u>'</u>	.	
SEE ATTACHED  SE	26		7.18	IND BECORD		<u> </u>		1 20		TURING	PECO	PD	
SEE ATTACHED  SE	·	TOP (M				MENT*	SCREEN (MD					-	PACKER SET (MD)
SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  AMOUNT AND KIND OF MATERIAL USED  PRODUCTION  ATTACHMENT PRODUCTION  AND PRODUCTION METHOD (Plowing, gas lift, pumping—size and type of pump)  1-27-92  Sub Pump  Sub Pump  Producing  Producing  Assure of test  Test Peniod  2-2-92  24  Test Peniod  238  147  AND PRESSURE  CALCULATED  SABOL BATIO  24-BOUR RATE  238  147  SEE ATTACHED  TEST PRODUCTION  WATER—BEL. GAS-NCF. WATER—BEL. GAS-OIL RATIO  TEST PENIOD  2-2-92  24  TEST WITNESSED BY  TEST WITNESSED BY  SEE ATTACHED  TEST WITNESSED BY  TEST WITNESSED BY  TEST WITNESSED BY	5"	10,355	5 1	3,984	403	SKS							
SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  AMOUNT AND KIND OF MATERIAL USED  PRODUCTION  ATTACHMENT PRODUCTION  AND PRODUCTION METHOD (Plowing, gas lift, pumping—size and type of pump)  1-27-92  Sub Pump  Sub Pump  Producing  Producing  Assure of test  Test Peniod  2-2-92  24  Test Peniod  238  147  AND PRESSURE  CALCULATED  SABOL BATIO  24-BOUR RATE  238  147  SEE ATTACHED  TEST PRODUCTION  WATER—BEL. GAS-NCF. WATER—BEL. GAS-OIL RATIO  TEST PENIOD  2-2-92  24  TEST WITNESSED BY  TEST WITNESSED BY  SEE ATTACHED  TEST WITNESSED BY  TEST WITNESSED BY  TEST WITNESSED BY						~							
SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SEE ATTACHED  SAME OF DEATH PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)  Producting  Production  Producting  Production  Production  Production  Production  Production  Producting  Production  Production  Production  Production  Production  Production  Production  Production  Production  Production  Production  Production  Production  Production  Production  Producting  Production  Produc	SI. PERFORATION R	ECOED (Inte	erval, Ancie	nd number)									
SEE ATTACHED  SEE ATTACHED  PRODUCTION  PR	SEE ATTAC	HED			•		DEPTH INT	ERVAL (MD)	- A3	TOUNT A	ND KIND	) OF M	ATERIAL USED
PRODUCTION  ATE FIRST PRODUCTION  ATE FIRST PRODUCTION  1-27-92  Sub Pump  Producing  OTHER  ATE OF TEST  HOURS TESTED  CHOKE SIZE  PROD'N. FOR  TEST PERIOD  2-2-92  24  CALCULATED  24-HOUR PATE  24-HOUR PATE  238  147  COMPT CO	JEE ATTAC	JILLD					SE	E ATTACHI	ED				<del></del>
Sub Pump  1-27-92  Sub Pump  Sub Pump  PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)  1-27-92  Sub Pump  Producing or shuf-in)  Producing  Pro													
Sub Pump  1-27-92  Sub Pump  Sub Pump  PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)  1-27-92  Sub Pump  Producing or shuf-in)  Producing  Pro	20.0		<del></del>	· · · · · · · · · · · · · · · · · · ·	~., <del></del>		VIOTE ON						
Sub Pump    ATE OF TEST		TIO"	PRODUCTI	ON METHOD (	Flowing, g			nd type of pu	mp)				(Producing or
ATE OF TEST HOURS TESTED CHORE SIZE PROD'N. FOR OIL—BBL. GAS—MCF. WATER—BBL. GAS—OIL BATIO  2-2-92  24  LOW. TUBING PRESS. CASING PRESSURE CALCULATED 24-HOUR RATE 24-HOUR RATE 238  147  LOW. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)  TEST WITNESSED BY  Completion Reports, Logs  16. I hereby certify that the foregoing and ottoched information is complete and correct as determined from all available records	1-27-92			Sub Pump							shut		ducing
CASING PRESSURE CALCULATED OIL—BBL. GAS—MCF. WATER—BBL. OIL GRAVITT-API (CORR.)  24-HOUR RATE  238  147  15. LIST OF ATTACHMENTS  Completion Reports, Logs  16. I hereby certify that the foregoing and ittached information is complete and correct as determined from all available records	DATE OF TEST			CHORE SIZE			4	GAS->	ICF.			.   6	AS-OIL BATIO
24-HOUR PATE 238  14. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)  TEST WITNESSED BY  15. LIST OF ATTACHMENTS  Completion Reports, Logs  16. I hereby certify that the foregoing and ittached information is complete and correct as determined from all available records				CATCULATED		<del>&gt;</del>		(62	WATE'D.			OIT. GR	AVITY-API (CORE)
15. LIST OF ATTACHMENTS  Completion Reports, Logs  16. I hereby certify that the foregoing and ittached information is complete and correct as determined from all available records	TOW. TOBING PRESS	. Casing	FREGGE AL		<b>E</b> 1			ice.	W A 1 D & -			012 02	.,,
Completion, Reports, Logs	34. DISPOSITION OF	GAS (Sold,	used for the	l, vented, etc.)					<u> </u>		WITHES	SED BY	
Completion, Reports, Logs										<u> </u>			
16. I hereby certify that the foregoing and ittoched information is complete and correct as determined from all available records			ate la										
			foregoing a	77.11_/	nformation	ie comp	lete and corre	ct as determi	ned from	all ava	ilable re	cords	
SIGNED SUPERVISING ENGINEER DATE 2/14/92	1	12/1/	1/1/	W-		,							2/1/1/02
	SIGNED	Ant D.		S	TI	CLE_	Supervis	ing chan	ieer.		DATE		C/ 14/ 3C

### INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or both, pursuant to applicable Federal and/or State laws and regulations. Any accessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments

should be listed on this form, see item 35.

item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Here 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. Here 22 and 24: If this well is completed for separate production from more than the interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Hem 29: "Sacks Cement". Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

SUNDANCE 4-15A2

FORM ATION	TOP	TOP BOTTOM DESCRIPTION, CONTENTS, STC.		MAMB	1	rote	
					*****	MBAS. DEFTE	TRUB VERT. DEFT
No DSTs or Cores			,	i	TGR	6406	,
					Mb	8500	
					TGR 3	9760	
					TFL	13907	
						·	
				! !			
•				!			

### Sundance #4-15A2

DEV - Duchesne County, Utah - Bluebell/Altamont - 1600 FNL - 1600 FEL SW NE, Section 15 - Township 1 South, Range 2 West - PZL W.I. 0.49198 - PTD 14200' - AFE #07016172 COMPLETION

12/23/91	CTD \$1,395,624 Waiting on Completion Unit.
12/24/91	CTD \$1,395,624 Waiting on Completion Unit.
12/25/91	CTD \$1,395,624 Waiting on Completion Unit.
12/26/91	CTD \$1,395,624 Waiting on Completion Unit.
12/27/91	CTD \$1,395,624 Waiting on Completion Unit.
12/28/91	CTD \$1,395,624 Waiting on Completion Unit.
12/29/91	CTD \$1,395,624 Waiting on Completion Unit.
12/30/91	CTD \$1,396,189 Road rig from Smith 2-9C5 to Sundance 4-15A2. Will RU 12/31/91.
12/31/91	CTD \$1,396,649 Spot equipment. RU pump & lines (no anchors) SDFN.
1/01/92	CTD \$1,396,649 Shut down.
1/02/92	CTD \$1,402,340 RU Pulling Unit. TIH w/ 4 1/8" bit, 6 - 3 1/8" DC's, 138 jts 2 7/8" NuLock tbg & 177 jts 2 7/8", 8rd tbg. PU all tools & tbg in singles. EOT @ 10,000'. SDFN.

#### Sundance #4-15A2

DEV - Duchesne County, Utah - Bluebell/Altamont - 1600 FNL, 1600 FEL SW NE, Section 15, T1S, R2W - PZL W.I. 0.49198 - PTD 14200' - AFE #07016172 - AFE Cost \$

#### COMPLETION

- 1/03/92 CTD \$1,406,180 TIH w/ 6 jts 2 7/8" tbg. Tag @ 10,354'. RU power swivel, break circ. Drill for 1/2 hr. Drill 10,354 to 10,362'. Fell through circ down 60'. RD swivel. TIH w/ 16 jts 2 7/8" tbg. Tag @ 10,942'. RU swivel. Break circ. Drill for 1/2 hr. Drill 10,942' to 10,952'. Fell through. Circ. down tbg 90'. RD power swivel. TIH w/ 11 jts 2 7/8" tbg. Tag @ 11,402'. (Pushing something ahead of bit) RD swivel. Drill for 10 min., fell through. Circ. down w/ swivel 38 jts to 12,657'. Rd. swivel circ. bottoms up w/ 120 BW. SDFN.
- 1/04/92 CTD \$1,410,250 11 hr SITP 0 psi. TIH w/ 41 jts 2 7/8" tbg. Tag @ 13,902' (18' high) RU swivel. Break circ. Drill for 1/2 hr. Fell to 13,930'. Drill for 2 hrs. Drill float collar & 20' cement to 13,953'. Circ bottoms up w/ 125 BW. RD swivel. POOH & lay down in singles, 181 jts 2 7/8" tbg. SDFN.
- 1/05/92 CTD \$1,410,250 13 hr SITP 0 psi. POOH & lay down in singles. 251 jts 2 7/8" tbg. Lay down DC's and tools. SDFN.
- 1/06/92 CTD \$1,594,775 19 hr SICP 0 psi. RU HLS. TIH & run CBL & Pet. logs from 13,943 to surface. Run both logs under 2000 psi WHP. RD HLS.
- 1/07/92 CTD \$1,597,649 3 1/2" hr SICP 0 psi. Change equipment to 3 1/2". TIH w/ 2' marker pup and 345 jts 3 1/2" tbg. FOT @ 10,227'. PU all tbg'in singles. SDFN.
- 1/08/92 CTD \$1,602,554 Circ hole w/ hot oiler. RD hot oiler. POOH w/ 345 jts 3 1/2" tbg. Stop twice and flush tbg w/ hot oiler. (75 BW each time) RU Mercury. TIH and set Guiberson 7" pkr @ 10,205 RD Mercury. SDFN.
- 1/09/92 CTD \$1,605,319 13 hr SICP 0 psi. RU 4-Star. TIH w/ seal assy & 181 jts 3 1/2" tbg. Hydrotest all tbg to 9000 psi. Had trouble with wax all day. SDFN.

Sundance #4-15A2

DEV - Duchesne County, brah - Bluebell/Altamont - 1600 FNL, 1600 FEL SW NE, Section 15, T1S, R2W - PZL W.I. 0.49198 - PTD 14200' - AFE #07016172 - AFE Cost \$

COMPLETION

1/11/92 CTD \$1,620,974 12 1/2 hr SITP - 0 psi. RU pump & lines. Roll ann. w/ 280 bbl pkr fluid. Land 3 1/2 tbg w/ 35,000# comp. ND BOP's. NU wellhead. SDFN.

1/12/92 CTD \$1,620,974 Shut down. Load perf guns.

1/13/92 CTD \$1,669,474 RU OWP RIH & perf the following intervals using 2 1/2" thru tbg guns:

	~~~~~~/		· 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		
12,095	12,320	12,537	12,749	13,043	13,293
12,099	12,356	12,550	12,765	13,093	13,326
12,107	12,377	12,585	12,773	13,107	13,332
12,135	12,380	12,597	12,827	13,112	13,354
12,139	12,396	12,602	12,872	13,118	13,364
12,172	12,438	12,644	12,881	13,127	13,380
12,177	12,443	12,655	12,886	13,155	13,468
12,183	12,451	12,664	12,944	13,162	13,635
12,269	12,455	12,686	12,948	13,169	13,678
12,287	12,490	12,712	12,958	13,227	
12,311	12,497	12,729	12,963	13,283	
12,315	12,512	12,744	13,014	13,286	

Total:

69 Intervals

69 Feet

69 Holes

RD OWP. (1900 psi SITP) RU Western. Install tree saver. Acidize perfs 12095-13678 w/ 20,000 gals 15% Hcl. Held 1500 psi on annulus during treatment. All acid contained the following: 1/2 gal/1000 clay stabilizer, 10 gal/1000 scale inhibitor, 2 gal/1000 NINE, 5 gal/1000 iron control, corrosion inhibitor for 8 hrs at 220 deg F, acid gel for friction reduction. Displaced to lower perf w/ 80 BW & 75 bbls diesel. Max. T.P. -10,000 psi. Min. T.P. - 6200 psi. Avg. T.P. - 9000 psi, Avg. T.P. - 18 BPM. ISDP - 5400 psi, 5 min. - 2200 psi, 10 min. - 900 psi, 15 min. - 100 psi. Used 200 1.3 S.G. ball sealers for diversion. Saw good diversion. RD Western. RU OWP. Continue perf the following intervals: 13,534-13,536 13,674-13,680 13,774-13,776 13,556-13,560 13,695-13,700 13,782-13,784 13,512-13,516 13,562-13,563 13,716-13,720 13,788-13,801 13,518-13,522 13.568-13.570 13.726-13.728 13.803-13.806 13.526-13.532 13,578-13,582 13,730-13,732 13,808-13,810 13,882-13,885 13,584-13,586 13,738-13,744 18,814-13,816 13,888-13,889 13,588-13,594 13,747-13,748 13,820-13,834 13,891-13,898 13.596-13.604 13.750-13.752 13.838-13.841 13.927-13.930 13,611-13,624 13,753-13,755 13,846-13,848 13,932-13,934 13,628-13,638 13,757-13,758 13,854-13,866 13,936-13,940 13,647-13,649 13,761-13,764 13,868-13,870 13,655-13,662 13,768-13,772 13,875-13,880

CTD \$1,673,064 Continue perforating using 2 1/2" thru tbg guns loaded w/ 2 SPF on 0 deg phasing (Mag. decentralized). Perforated the following: 12,530-12,542 12,801-12,808 13,017-13,019 13,254-13,260 12,544-12,545 18,816-12,818 13,021-13,030 13,270-13,272 12,547-12,551 12,822-12,828 13,034-13,035 13,279-13,288 12,558-12,563 12,830-12,834 13,038-13,050 13,292-13,294 12,566-12,571 12,837-12,847 13,059-13,066 13,310-13,311 12,576-12,577 12,849-12,851 13,084-13,085 13,315-13,316 12,580-12,588 12,854-12,856 13,087-13,088 13,323-13,328 12,594-12,604 12,861-12,862 13,090-13,097 13,330-13,340 12,607-12,616 12,864-12,877 13,099-13,101 13,342-13,358 12,619-12,620 12,880-12,887 13,106-13,114 13,361-13,372 12,622-12,624 12,891-12,893 13,116-13,119 13,375-13,382 12.625-12.626 12.896-12,898 13,124-13,129 13,284-13,386 12,629-12,634 12,904-12,908 13,135-13,137 13,392-13,395 12,640-12,645 12,916-12,938 13,141-13,144 13,397-13,400 12,650-12,660 12,940-12,952 13,146-13,151 13,402-13,404 12,662-12,668 12,956-12,968 13,153-13,156 13,412-13,414 12,670-12,671 12,970-12,971 13,158-13,170 13,416-13,420 12,683-12,689 12,975-12,976 13,172-13,182 13,426-13,432 12,698-12,700 12,982-12,983 13,184-13,188 13,457-13,462 12,704-12,720 12,985-12,986 13,193-13,200 13,464-13,472 12,726-12,731 12,990-12,996 13,208-13,212 13,493-13,497 12,738-12,753 12,999-13,002 13,221-13,223 13,500-13,504 12.757-12.759 13.004-13.006 13.225-13.230 13.508-13.510 12,764-12,777 13,009-13,010 13,235-13,237 12,785-12,790 13,012-13,016 13,244-13,246

Fluid level at 3700-3800'.

1/15/92 CTD \$1,776,809 Perfs 12,077-13,940 (2,035 holes)
Continue perforating the following intervals w/ 2 1/2"
thru tbg guns loaded w/ 2 SPF on 0 deg phasing (Mag. decentralized):

12,077-12,088 12,202-12,204 12,310-12,322 12,409-12,411 12,090-12,111 12,207-12,210 12,325-12,328 12,414-12,418 12,115-12,116 12,213-12,215 12,333-12,337 12,433-12,448 12,117-12,119 12,217-12,219 12,339-12,341 12,450-12,456 12,121-12,123 12,222-12,334 12,349-12,362 12,458-12,460 12,131-12,141 12,227-12,229 12,365-12,367 12,471-12,473 12,143-12,145 12,231-12,233 12,370-12,382 12,478-12,480 12,148-12,158 12,237-12,348 12,384-12,388 12,484-12,500 12,165-12,169 12,263-12,272 12,391-12,400 12,503-12,505 12,171-12,184 12,275-12,278 12,402-12,404 12,507-12,508 12,187-12,198 12,280-12,298 12,406-12,407 12,510-12,518 12,301-12,308

3 day total: 189 int., 933', 1966 holes. Very Enhanced Phasor Induction Log (12-07-91) was used for depth control and correlated to CBL (1-6-92). Final level 3700-3800'. No pressure. SDFN. Will acidize 1/18/92.

1/16/92 CTD \$1,778,524 Perfs 12,077-13,940 (2035 holes) Rig shut down until 1/18/92. Moved in 7 frac tanks. Load acid tanks with corrosion inhibitor & other chemicals. Hauled in 2000 bbls fresh filtered H2O.

1/14/92

Sundance #4-15A2
DEV - Duchesne Couper, Utah - Bluebell/Altamont - 1600 FNL, 1600 FEL
SW NE, Section 15, R2W - PZL W.I. 0.49198 - PTD 200' - AFE
#07016172 - AFE Cost \$
COMPLETION

- 1/17/92 CTD \$1,779,479 Perfs 12,077-13,940 (2,035 holes) Shut down.
- 1/18/92 CTD \$1,905,524 Perfs 12,077-13,940 (2035 holes) 59 1/2 hr SITP - O psi, RU Western Co. of NA. Install tree saver. Set 2 annular pop-offs at 2000 psi. Hold 1500 psi on annulus during treatment. Acidize perfs w/ 110,000 gals 15% Hcl using 3000 1.3 S.G. ball sealers, 20,000# BAF and 20,000# wax beads for diversion. Saw some good breaks. All acid contained the following: 1/2 gal/ 1000 clay stabilizer, 10 gal/ 1000 scale inhibitor, 2 gal/ 1000 NINE, 2 gal/ 1000 silt suspender, 5 gal/ 1000 iron control, corrosion inhibitor for 10 hrs at 220 deg F, 1 gal/ 1000 acid gel. Max. T.P. - 10,000 psi, Min. T.P. - 8000 psi. Avg. T.P. - 9000 - 9400 psi. Avg. T.R. 18-20 BPM. ISDP -3800 psi. 5 min. SITP - 1800 psi. 10 min. SITP - 1000 psi, 15 min. SITP - 400 psi. RD Western. RU swab. IFL 4400'. Made 4 swab runs FFL - 4500'. Recovered 0 BO -31 BW, SDFN. Total load - 2907 BW - load recovered - 31 BW - load remaining - 2,876 BW.
- 1/19/92 CTD \$1,908,239 Perfs 12,077-13,940 (2,035 holes) 12 1/2 hr SITP - 0 psi. RU swab IFL - 6700'. (100% water) Made 24 swab runs. FFL - 3300'. (60% oil - PH - 4) Recovered 140 BW 48 BO. SDFN. Load remaining - 2736 BW.
- 1/20/92 CTD \$1,915,415
  12 hr SITP 400 psi. Blow well down in 15 mins. No fluid. RU swab IFL 2800' (100% oil). Made 33 swab runs FFL 4400' (60% oil, pH 4.5). Rec 93 BW, 171 BO, 2565 BLWTR. SDFN.
- 1/21/92 CTD \$1,918,150 Perfs 12,077-13,940 (2,035 holes) SITP 600 psi (12 1/2 hrs) Blow well down in 1 hr.

  Recovered 3 BO RU swab. IFL 1000' (100% oil) Made 23 swab runs FFL 4900' (70% oil). Recovered 145 BO 45 BW. SDFN. Load remaining 2520 BW.
- 1/22/92 CTD \$1,922,461 Perfs 12,077-13,940 (2,035 holes) Hot oiler had tbg flushed by 7:00 a.m. ND wellhead NU BOP's. Release seal assy. POOH w/ 345 jts, 3 1/2" tbg. Lay down all tbg in singles. Stop & flush tbg twice (60 BW each time). Lay down seal assy. PU & TIH w/ 7" pkr-plucker, bumper sub, 4 4 3/4" DC's & 38 jts 2 7/8" Nulock tbg. SDFN.
- 1/23/92 CTD \$1,929,278 Perfs 12,077-13,940 (2035 holes) 150 psi 9 hrs. Blow well down in 10 min. No fluid. TIH w/ 100 jts 2 7/8" Nulock tbg, and 179 jts 2 7/8" EVE tbg. Tag pkr at 10,205'. RU swivel. Mill out pkr. Mill for 3 1/2 hrs while pmpg down the annulus. Got pkr moving up & down. RD swivel. POOH w/ 179 jts 2 7/8" EVE, 138 jts 2 7/8" Nulock, 4 4 3/4" DC's, bumper sub and pkr plucker w/ pkr assy. RU Delsco. TIH to check PBTD 13,895'. RD Delsco. SDFN.

Sundance #4-15A2

DEV - Duchesne County, Utah - Bluebell/Altamont - 1600 FNL, 1600 FEL

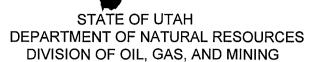
SW NE, Section 15, T1S, R2W - PZL W.I. 0.49198 - PTD 14200' - AFE

#07016172 - AFE Cost \$

COMPLETION

1/24/92	CTD \$1,942,180 Perfs 12,077-13,940 (2035 holes) 8 hr
• •	SICP - 25 psi - blow well down in 5 min. No fluid. TIH
	w/ 138 jts 2 7/8" Nulock tbg. POOH and lay down same.
	TIH w/ 316 jts 2 $7/8$ " EVE tbg. PU 138 jts in singles.
	SDFN.

- 1/25/92 CTD \$1,942,180 RD pulling unit. RD pump & lines. Road pulling unit to 5-19A2.
- 1/26/92 CTD \$1,942,180 SDFWE.
- 1/27/92 CTD \$1,947,516 MI drilling unit. POOH w/ 316 jts 2
  7/8", 6.5# EVE N-80 tbg. PU & service new centrilift
  equipment. RIH w/ 134 jts 2 7/8", 6.5# EVE N-80 tbg &
  sub pump cable using 3 bands per joint to band cable to
  tbg. SDFN.
- 1/28/92 CTD \$1,961,207 RIH w/ remaining 182 jts 2 7/8", 6.5# EVE N-80 tbg and sub pump cable using 3 bands per joint to band cable to tbg. MU tbg hanger, strip off BOP & hydril. Land tbg in tbg head. NU wellhead. Turn sub pump on at 4:12 p.m. Had fluid to surface at 5:07 p.m. SDFN.
- 1/29/92 CTD \$2,002,092 Well pumped 25 BO, 245 BW overnight. RDMOL. - FINAL REPORT -



SUNDRY NOTICES AND	5. Lease Designation and Serial No.			
Do not use this form for proposals to Use "APPLICATION FOR	6. If Indian, Allottee or Tribe Name			
	I TRIPLICATE	7. If unit or CA, Agreement Designation		
Type of Well      Gas well  Other  2. Name of Operator	-	8. Well Name and No.  Sundance 4-15A2		
Pennzoil Company  3. Address and Telephone No.		9. API Well No. 43-013-31333		
P.O. Drawer 10, Roosevelt, UT  4. Location of Well (Footage, Sec., T., R., M., or Survey Des	801-722-6206	10. Field and Pool, or Exploratory Area  Bluebell-Wasatch		
1600' FNL & 1600' FEL SW NE	SEC. 15 TIS R2W	11. County or Parish, State  DUCHESNE , UTAH		
	s) TO INDICATE NATURE OF NOTICE, R			
TYPE OF SUBMISSION  Notice of Intent	TYPE OF ACTION  Abandonment  Recompletion	Change of Plans  New Construction		
Subsequent Report	X Recompletion Plugging Back Casing repair	Non-Routine Fracturing Water Shut-off		
Final Abandonment Notice	Altering Casing Other	Conversion to Injection  Dispose Water (Note: Report results of multiple completion or Well Completion or Recompletion Report and Log form.)		
drilled, give subsurface locations and measured and	ate all pertinent details, and give pertinent dates, including estimated did true vertical depths for all markers and zones pertinent to this work)  111,310-12,014', Acidize with 20,800 gals 1 return to production.			
		NOV 06 1997  DIV. OF OIL, GAS & MINING		
14. I hereby certify that the foregoing is true and correct Signed John Pulley family ly	Title Drilling Engineer	Date 11/5/97		
(This space of Federal or State office use.)  Approved by  Conditions of approval, if any:	Title Associate Diractor	Date 11/7/97		

# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND Do not use this form for proposals to Use "APPLICATION FOR	5. Lease Designation and Serial No. FEE  6. If Indian, Allottee or Tribe Name	
SUBMIT IN	I TRIPLICATE	7. If unit or CA, Agreement Designation
1. Type of Well		
X Oil Well Gas well Other		8. Well Name and No.
2. Name of Operator		Sundance 4-15A2
Pennzoil Company		9. API Well No. 43-013-31333
3. Address and Telephone No.  P.O. Drawer 10, Roosevelt, UT	801-722-6206	10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey Des		Bluebell-Wasatch
1600' FNL & 1600' FEL SW NE	SEC. 15 TIS R2W	11. County or Parish, State  DUCHESNE, UTAH
CHECK APPROPRIATE BOY(	s) TO INDICATE NATURE OF NOTICE,	PEROPT OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION	
Notice of Intent	Abandonment	Change of Plans
	X Recompletion	New Construction
X Subsequent Report	Plugging Back	Non-Routine Fracturing
	Casing repair	Water Shut-off
Final Abandonment Notice	Altering Casing	Conversion to Injection
	Other	Dispose Water (Note: Report results of multiple completion on Well
drilled, give subsurface locations and measured and 11/06/97 to 11/16/97 Set one way CIBP at 12,052', perf	ate all pertinent details, and give pertinent dates, including estimate of true vertical depths for all markers and zones pertinent to this wor or attending a distribution of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control	2014', 208', 42 intervals, 416 holes
		DECEIVE DEC 03 1997 DIV. OF OIL, GAS & MINING
14. I hereby certify that the foregoing is true and correct Signed John Pulley	TitleDrilling Engineer	Date 12/2/97
(This space of Federal or State office use.)		
Approved by	Title	Date
Conditions of approval, if any:		

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly to make to any department of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

WO tax credit 9/98

STATE OF UTAH DEPARTME OF NATURAL RESOURCES DIVISION OF OIL, GAS, & MINING

#### SHINDRY NOTICES AND DEDODTS ON WELLS

5. Lease Designation and Serial No.

SUNDAT NUTICES AND A	PONTS ON WELLS				
o not use this form for proposals to drill o Use "APPLICATION FOR PE	r deepen or reentry to a different reservoir. RMIT -" for such proposals	6. If Indian, Allottee or Tribe Name			
SUBMIT IN	TRIPLICATE	7. If unit or CA, Agreement Designation			
Type of Well  Gas well  Other		8. Well Name and No.			
Name of Operator		Sundance 4-15A2			
Pennzoil Company		9. API Well No.			
Address and Telephone No.		43-013-3133 <b>3</b>			
P.O. Drawer 10 Roosevelt, UT 8	4 0 66 (8 0 1) 722-6202	10. Field and Pool, or Exploratory Area			
Location of Well (Footage, Sec., T., R., M., or Survey Description)		Altamont- Wasatch			
		11. County or Parish, State			
1600' FNL and 1600' FEL of Section 18	5, T1S, R2W	Duchesne, Utah			
		<u> </u>			
CHECK APPROPRIATE BOX(s) TO	) INDICATE NATURE OF NOTICE, REPORT, OF	ROTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION				
Notice of Intent	Abandonment	Change of Plans			
	Recompletion	New Construction			
X Subsequent Report	Plugging Back	Non-Routine Fracturing			
	Casing repair	Water Shut-off			

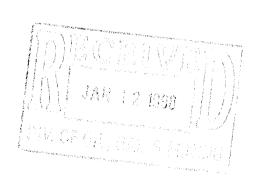
13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directioally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

Casing repair Altering Casing

Other REPAIR TBG LEAK.

Work done from 5/19/97 to 5/24/97 POOH w/rods and tbg. Hydro - test tbg Return well to production

Final Abandonment Notice



Conversion to Injection

Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

oreby certify that the foregoing is true and correct gned		Date 8-Jan-98
	Title Senior lease operator.	Date <u>8-Jan-98</u>
his space of Federal or State office use.)		

#### Division of Oil, Gas and Mining

#### **OPERATOR CHANGE WORKSHEET**

Enter date after each listed item is completed

Change of Operator (Well Sold)

Designation of Agent

04/20/2000

04/20/2000

Operator Name Change (Only)

The operator of the well(s) listed below has changed, effective:

X Merger

04-01-2000

FROM: (Old Operator):		<b>TO:</b> ( No	ew Operator):					
PENNZOIL COMPANY		DEVON ENERGY EXPL & PROD CO LLC						
Address: P. O. BOX 290	<u> </u>	Address: 20 NO. BROADWAY STE 1500						
NEOLA, UT 84053	<del></del>		MA CITY, OF					
				· · · · · · · · · · · · · · · · · · ·				
Phone: 1-(435)-353-4121	_	Phone: 1-	(405)-235-361	<u> </u>	<del>-</del>			
Account No. N0705		Account	N1275	-				
	_			_				
CA No	).	Unit:						
WELL(S)						-		
1, 222(3)	API	ENTITY	SEC. TWN	LEASE	WELL	WELL		
NAME	NO.	NO.	RNG	TYPE	TYPE	STATUS		
DUNCAN 4-2A2	43-013-31276	11258	02-01S-02W	_	ĪĠW	P		
MECCA 2-8A2	43-013-31231	10981	08-01S-02W	FEE	ow	P		
HAMBLIN 3-9A2	43-013-31278	11094	09-01S-02W	FEE	GW	P		
SUNDANCE 4-15A2	43-013-31333	11269	15-01S-02W		ow	P		
LAMB 2-16A2	43-013-31390	11487		FEE	ow	S		
LAMICQ URRITY 4-17A2	43-013-31190	10764	17-01S-02W	FEE	ow	P		
LAMICQ 2-20A2	43-013-31191	10794	20-01S-02W	FEE	OW	P		
LORANGER 6-22A2	43-013-31334	11335	22-01S-02W	FEE	OW	P		
LABRUM 2-23A2	43-013-31393	11514	23-01S-02W	FEE	OW	P		
LORANGER 2-24A2	43-013-31322	11244	24-01S-02W	FEE	OW	P		
SHAW 2-27A2	43-013-31184	10753	27-01S-02W	FEE	OW	P		
WISSE 3-35A2	43-013-31215	10925	35-01S-02W	FEE	ow	P		
COX 2-36A2	43-013-31335	11330	36-01S-02W		OW	P		
HATCH 2-3B1	43-013-31147	10615	03-02S-01W	FEE	OW	P		
BAR F 2-5B1	43-013-31286	11113	05-02S-01W		OW	P		
FRESTON 2-8B1	43-013-31203	10851	08-02S-01W	FEE	OW	P		
NORLING 2-9B1	43-013-31151	10616	09-02S-01W	FEE	OW	P		
EDWARDS 3-10B1	43-013-31332	11264	10-02S-01W	FEE	OW	P		
POWELL 2-16B1	43-013-31820	12342	16-02S-01W	FEE	OW	P		
CHAPMAN 2-4B2	43-013-31378	11485		FEE	OW	P		
PEARSON 2-11B2	43-013-31356	11359		FEE	OW	P		
SMITH 2-9C5	43-013-31321	11245	09-03S-05W	FEE	OW	P		
BALLARD 2-15B1	43-047-32351	11476	15-02S-01W	FEE	OW	S		

(R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on:

2. (R649-8-10) Sundry or legal documentation was received from the NEW operator on:

3.	The new company has been checked through the <b>Department of Commerce</b> , <b>Division of Corporations Database on:</b> 10/12/2000
4.	Is the new operator registered in the State of Utah:  YES  Business Number: 4549132-0143
5.	If NO, the operator was contacted contacted on:
6.	Federal and Indian Lease Wells: The BLM and or the BIA has approved the (merger, name change, or operator change for all wells listed on Federal or Indian leases on:
7.	Federal and Indian Units: The BLM or BIA has approved the successor of unit operator for wells listed on:  N/A
8.	Federal and Indian Communization Agreements ("CA"): The BLM or the BIA has approved the operator change for all wells listed involved in a CA on:  N/A
9.	Underground Injection Control ("UIC") Pro; The Division has approved UIC Form 5, Transfer of Authority to Inject, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on:  N/A
<b>D</b> A	ATA ENTRY: Changes entered in the Oil and Gas Database on: 10/16/2000
2.	Changes have been entered on the Monthly Operator Change Spread Sheet on: 10/16/2000
3.	Bond information entered in RBDMS on:
4.	Fee wells attached to bond in RBDMS on:
<b>ST</b>	State well(s) covered by Bond No.:
FF	E WELLS - BOND VERIFICATION/LEASE INTEREST OWNER NOTIFICATION:
1.	(R649-3-1) The <b>NEW</b> operator of any fee well(s) listed has furnished a bond:  YES
	The <b>FORMER</b> operator has requested a release of liability from their bond on:  The Division sent response by letter on:  10/03/2000  09/26/2000
3.	(R649-2-10) The <b>FORMER</b> operator of the Fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on:  10/17/2000
FI	LMING:
1.	All attachments to this form have been MICROFILMED on: 3.0/
FI	LING:
1.	ORIGINALS/COPIES of all attachments pertaining to each individual well have been filled in each well file on:
CC	MMENTS:

.



# United States Department of the Interior

#### **BUREAU OF LAND MANAGEMENT**

**Utah State Office** P.O. Box 45155 Salt Lake City, UT 84145-0155

RECEIVED DIVISION OF OIL, GAS AND MINING

In Reply Refer To: 3106 U-0575A et al (UT-932)

FEB 1 6 2000

#### NOTICE

Devon Energy Production Company L.P.

20 North Broadway, Suite 1500

Oil and Gas

U-0575A et al.

Oklahoma City, Oklahoma 73102-8260

### Merger Recognized

Acceptable evidence has been filed in this office concerning the merger of Devon Energy Corporation (Nevada) and PennzEnergy Exploration and Production Company, L.L.C. into Devon Energy Production Company, L.P. with that company being the surviving entity.

The oil and gas lease files listed on the enclosed exhibit have been noted as to the merger. The exhibit was compiled from your list of leases, and a list of leases obtained from our computer system. We have not attempted to identify leases where the entities are the operator on the ground maintaining no vested record title or operating rights interests. We are notifying the Minerals Management Service and all applicable Bureau of Land Management offices of the merger by a copy of this notice. If additional documentation for changes of operator are required by our Field Offices, you will be contacted by them.

PennzEnergy Company assigned 100 percent of the record title interest, in the following leases on the list submitted by Devon Energy Production Company L.P., to Barrett Resources Corporation (Barrett) effective January 1, 2000.

U-0143511

U-4377

UTU-67943

U-0143512

U-4378

Subsequently, Barrett assigned 100 percent of the record title interest to Coastal Oil & Gas Corporation effective February 1, 2000. A copy of this notice is being placed in these files to cover any overriding royalty interest that would be held by the surviving entity.

Lease U-0115614A is held 100 percent by Flying J Oil & Gas. PennzEnergy Company holds 100 percent of the record title interest in lease U-3575. No record title assignment assigning the interest to PennzEnergy Exploration and Production Company, L.L.C. has been filed in this office. A copy of this notice will be placed in the lease files to cover any overriding royalty interest that would be held by the surviving entity.

Leases U-61343, UTU-64532, UTU-66485 and UTU-75200 have expired and are closed on the records of this office.

An assumption rider for BLM Bond No. CO1104 has been filed in the Colorado State Office.

# /a/ Robert Lopez

Robert Lopez Chief, Branch of Minerals Adjudication

Enclosure

**Exhibit** 

cc: Vernal Field Office (w/encl.)

Moab Field Office (w/encl.)

MMS, Reference Data Branch, MS3130, P.O. Box 5860, Denver, CO 80217 (w/encl.) State of Utah, DOGM, Attn: Kristen Risbeck (Ste. 1210), Box 145801, SLC, UT (w/encl.)

Teresa Thompson (UT-931) (w/encl.) Irene Anderson (UT-932) (w/encl.) LaVerne Steah (UT-942) (w/encl.)

## **Exhibit of Leases**

U-0575A	U-0141459	U-4377
U-01188B	U-0143511	U-4378
U-016654	U-0143512	U-16131
U-0115614A	U-0144868A	U-31262
U-0115615	U-3099	U-44426
U-0126825	U-3575	UTU-67943
U-0141454	UTU-74888	

# **Communitization Agreements**

U-58774	U-58835	U-60827
U-58799	U-58839	U-60831
U-58830	U-58844	U-68998
U-58834	U-58854	



# United States Department of the Interior

# BUREAU OF LAND MANAGEMENT Utah State Office P.O. Box 45155 Salt Lake City, UT 84145-0155

In Reply Refer To: 3100 U-4377 UTU-66485 (UT-932)

MAR 2 6 1999

#### NOTICE

 $\label{pennzenergy} \mbox{ Exploration and Production L.L.C.}$ 

P.O. Box 2967

Houston, TX 77252-2967

Oil and Gas

#### Merger Recognized

Acceptable evidence has been filed in this office concerning the merger of Pennzoil Exploration and Production Company into PennzEnergy Exploration and Production L.L.C. with PennzEnergy Exploration and Production L.L.C. being the surviving entity.

For our purposes, the merger is recognized effective December 28, 1998, (Secretary of State's approval date).

Oil and gas lease files U-4377 and UTU-66485 have been noted as to the merger. The lease file numbers were obtained from a list of leases drawn from our Automated Land and Mineral Record System (ALMRS). We have not abstracted the lease files to determine if the entity affected by the merger holds an interest in the leases identified nor have we attempted to identify leases where the entity is the operator on the ground maintaining no vested record title or operating rights interests. We are notifying the Minerals Management Service and all applicable Bureau of Land Management offices of the change by a copy of this notice. If additional documentation for changes of operator are required by our Field Offices, you will be contacted by them.

By recognition of the merger, the principal/obligor is automatically changed by operation of law from Pennzoil Exploration and Production Company to PennzEnergy Exploration and Production L.L.C. on Bond No. 8023 29 91 (BLM Bond No. NM0043). The principal/obligor is also automatically changed from Pennzoil Exploration and Production Company to PennzEnergy Exploration and Production L.L.C. on Bond No. 8134-90-99 (BLM Bond No. NM2142).

IRENLU. MODERCOM

Irene J. Anderson Acting Group Leader, Minerals Adjudication Group

cc: Moab Field Office

Vernal Field Office

MMS, Reference Data Branch, MS 3130, Box 5860, Denver, CO 80217

State of Utah, DOGM, Attn: Kristen Risbeck (Ste. 1210), Box 145801, SLC, UT 84114-5801

Teresa Thompson (UT-931)



# United States Department of the Interior

# BUREAU OF LAND MANAGEMENT Utah State Office P.O. Box 45155 Salt Lake City, UT 84145-0155

In Reply Refer To: 3100 U-0115615 et al (UT-932)

MAR 2 6 1999

NOTICE

PennzEnergy Company P.O. Box 2967 Houston, TX 77252-2967 Oil and Gas

-Merger-Recognized

Acceptable evidence has been filed in this office concerning the merger of PennzEnergy Company into Pennzoil Company with PennzEnergy Company being the surviving entity.

For our purposes, the merger is recognized effective December 30, 1998, (Secretary of State's approval date).

The oil and gas lease files and communitization agreement computer files identified on the enclosed exhibit have been noted as to the merger. The exhibit was compiled from a list of leases obtained from our Automated Land and Mineral Record System (ALMRS). We have not abstracted the lease files to determine if the entity affected by the merger holds an interest in the leases identified nor have we attempted to identify leases where the entity is the operator on the ground maintaining no vested record title or operating rights interests. We are notifying the Minerals Management Service and all applicable Bureau of Land Management offices of the change by a copy of this notice. If additional documentation for changes of operator are required by our Field Offices, you will be contacted by them.

By recognition of the merger, the principal/obligor is automatically changed by operation of law from Pennzoil Company to PennzEnergy Company on Bond No. 8134-90-99 (BLM Bond No. NM2142).

IRENL G. (COTTOC)

Irene J. Anderson Acting Group Leader, Minerals Adjudication Group

Enclosure

**Exhibit** 

cc:

Moab Field Office Vernal Field Office

MMS, Reference Data Branch, MS 3130, Box 5860, Denver, CO 80217

State of Utah, DOGM, Attn: Kristen Risbeck (Ste. 1210), Box 145801, SLC, UT 84114-5801

Teresa Thompson (UT-931)

## Devon Energy Production Company, L.P.

# FILED

# DEC 3 0 1999

OF STATE

# OKLAHOMA SECRETARY

### **Certificate of Merger**

TO:

The Oklahoma Secretary of State

101 State Capitol

Oklahoma City, Oklahoma 73105

Devon Energy Production Company, L.P., a limited partnership organized under the laws of the State of Oklahoma, for the purpose of filing a Certificate of Merger pursuant to the provisions of 54 O.S. § 310.1, does hereby execute the following Certificate of Merger:

1. The name and jurisdiction of formation or organization of each of a domestic limited partnership, a foreign corporation and a foreign limited liability company which are to merge are:

Name of Organization	Type of Organization	Jurisdiction of Formation
Devon Energy Production Company, L.P.	Limited Partnership	Oklahoma
Devon Energy Corporation (Nevada)	Corporation	Nevada
PennzEnergy Exploration and Production Company, L.L.C.	Limited Liability Company	Delaware

- 2. An Agreement of Merger has been approved and executed by the limited partnership, the corporation and the limited liability company which are to merge.
  - 3. The name of the surviving or resulting limited partnership is:

Devon Energy Production Company, L.P.

- 4. The merger shall be effective upon the filing of this Certificate of Merger with the Secretary of State of Oklahoma.
- 5. The Agreement of Merger is on file at the place of business of the surviving limited partnership at 1500 Mid-America Tower, 20 North Broadway, Oklahoma City, Oklahoma 73102.
- 6. A copy of the Agreement of Merger shall be furnished by the surviving or resulting limited partnership, upon request and without cost, to any partner of any limited partnership or any person holding an interest in any other business entity which is to merge.

MAR 13 2000

DIVISION OF OIL, GAS AND MINING

DATED as of the 30th day of December, 1999.

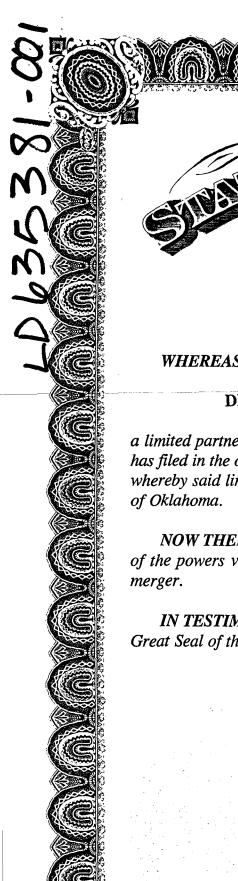
Devon Energy Management Company, L.L.C. General Partner

J. Larry Nichols, Manager

RECEIVED

MAR 1 3 2000

DIVISION OF OIL, GAS AND MINING



OFFICE OF THE SECRETARY OF STATE



# **CERTIFICATE OF MERGER**

WHEREAS,

### DEVON ENERGY PRODUCTION COMPANY, L.P.

a limited partnership organized under the laws of the State of OKLAHOMA, has filed in the office of the Secretary of State duly authenticated evidence of a merger whereby said limited partnership is the survivor, as provided by the laws of the State

NOW THEREFORE, I, the undersigned Secretary of State of Oklahoma, by virtue of the powers vested in me by law, do hereby issue this Certificate evidencing such

IN TESTIMONY WHEREOF, I hereunto set my hand and cause to be affixed the Great Seal of the State of Oklahoma.

> Filed in the City of Oklahoma City this <u>30TH</u> day of <u>DECEMBER</u>, 1999.

By:

## DESIGNATION OF AGENT OR OPERATOR

	DESIGNATION OF AGENT ON OPERATOR
	e undersigned is, on record, the holder of oil and gas lease
t	EASE NAME: As per the attached spreadsheet.
L	EASE NUMBER:
and	hereby designates
N	Devon Energy Production Company, L.P.
A	DORESS: 20 North Broadway, Suite 1500, Oklahoma City, OK 73102-8260
con	nis agent []/operator [3], with full authority to act in his behalf in complying with the terms of the lease and regulations licable thereto and on whom the Division Director or Authorized Agent may serve written or oral instructions in securing upliance with the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the e of Utah with respect to:
(Dec	cribe acreage to which this designation is applicable, and identify each applicable oil and gas well by name and API number. Attach additional pages as needed.)
	See attached spreadsheet.
	Note: Please use April 1, 2000 as the starting date for production reporting purposes.
	RECEIVED
	APR 2 0 2000
	DIVISION OF OIL, GAS AND MINING
of the State in the In car lease The I	inderstood that this designation of agent/operator does not relieve the lessee of responsibility for compliance with the terms a lease and the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the of Utah. It is also understood that this designation of agent or operator does not constitute an assignment of any interest a lease.  See of default on the part of the designated agent/operator, the lessee will make full and prompt compliance with all rules, a terms or orders of the Board of Oil, Gas and Mining of the State of Utah or its authorized representative.  The bessee agrees to promptly notify the Division Director or Authorized Agent of any change in this designation.  The besignation:  January 1, 2000
	Name) R. D. 6lark OF: (Company) PennzEnergy Exploration and Production
	Company, L.L.C.  (Address) 20 North Broadway, Suite 1500
•	Vice President Oklahoma City, OK 73102-8260
•	Phone) 405-235-3611
10	



APR 2 0 2000

# DEVON ENERGY PRODUCTION COMPANY, L.P. UTAH PROPERTIES

DIVISION OF OIL. GAS AND MINING

	OIL, GAS AND					LEASE NO. /
	API NO.	WELL NAME & NO.	LOCATION	COUNTY	FIELD NAME	AGREEMENT NO.
28	4301330297	GEORGE MURRAY 1-16B1	SENW-16-2S-1W	DUCHESNE	BLUEBELL	
29	4301330307	UTE ALLOTTED 1-36Z2	NWSE-36-1N-2W	DUCHESNE	BLUEBELL	1420H621676 / 9C124
30	4301330347	LAMICQ URRUTY U 4-5A2	SENW-5-1S-2W	DUCHESNE	BLUEBELL	
31	4301330359	H G COLTHARP 1-15B1	SENW-15-2S-1W	DUCHESNE	BLUEBELL	
32	4301330369	STATE 3-18A1	NESW-18-1S-1W	DUCHESNE	BLUEBELL	9C142
20	4301330564	D L GALLOWAY 1-14B2	SWNE-14-2S-2W	DUCHESNE	BLUEBELL	
54	4301330807	MARGUERITE 2-8B2	SENW-8-2S-2W	DUCHESNE	BLUEBELL	96102
35	4301330809	LAMICQ 2-6B1	NWSE-6-2S-1W	DUCHESNE	BLUEBELL	
36	4301330821	DILLMAN 2-28A2	SWNE-28-1S-2W	DUCHESNE	BLUEBELL	
37	4301330903	HAMBLIN 2-26A2	SWNE-26-1S-2W	DUCHESNE	BLUEBELL	
38	4301330912	RACHEL JENSEN 2-16C5	NENW-16-3S-5W	DUCHESNE	ALTAMONT	
39	4301330921	ROBERTSON UTE 2-2B2	NENE-2-2S-2W	DUCHESNE	BLUEBELL	9682
40	4301330975	JOHN 2-3B2	NWNE-3-2S-2W	DUCHESNE	BLUEBELL	
41	4301330995	LAMICQ ROBERTSON STATE 2-1B2	SWNE-1-2S-2W	DUCHESNE	BLUEBELL	
42	4301331009	UTE 2-7A2	CNE-7-1S-2W	DUCHESNE	BLUEBELL	1420462811
43	4301331147	HATCH 2-3B1	SENW-3-2S-1W	DUCHESNE	BLUEBELL	
44	4301331151	NORLING 2-9B1	SWSW-9-2S-1W	DUCHESNE	BLUEBELL	
45	4301331184	SHAW 2-27A2	SESW-27-1S-2W	DUCHESNE	BLUEBELL	
	4301331190	LAMICQ URRUTY 4-17A2	SENW-17-1S-2W	DUCHESNE	BLUEBELL	
41	4301331191	LAMICQ 2-20A2	SESE-20-1S-2W	DUCHESNE	BLUEBELL	
48	4301331192	BOREN 3-11A2	SWSW-11-1S-2W	DUCHESNE	BLUEBELL	96107
49	4301331203	FRESTON 2-8B1	SWNE-8-2S-1W	DUCHESNE	BLUEBELL	
50	4301331215	WISSE 3-35A2	SWSW-35-1S-2W	DUCHESNE	BLUEBELL	
51	4301331231	MECCA 2-8A2	SESE-8-1S-2W	DUCHESNE	BLUEBELL	
52	4301331232	MARK 2-25A2	NWNE-25-1S-2W	DUCHESNE	BLUEBELL	NW537
53	4301331233	DUNCAN 4-12A2	SWNW-12-1S-2W	DUCHESNE	BLUEBELL	UTU77363
54	4301331235	SWYKES 2-21A2	NWNW-21-1S-2W	DUCHESNE	BLUEBELL	NW590

APR 2 0 2000

## DEVON ENERGY PRODUCTION COMPANY, L.P. UTAH PROPERTIES

DIVISION OF OIL, GAS AND MINING

						LEASE NO./
	API NO.	WELL NAME & NO.	<u>LOCATION</u>	COUNTY	FIELD NAME	AGREEMENT NO.
55	4301331238	SHERMAN 2-12B2	SWSE-12-2S-2W	DUCHESNE	BLUEBELL	9690
56	4301331245	MILES 7-7B3	SWNW-7-2S-3W	DUCHESNE	ALTAMONT	9675
57	4301331276	DUNCAN 4-2A2	NESE-2-1S-2W	DUCHESNE	BLUEBELL	
58	4301331278	HAMBLIN 3-9A2	SENE-9-1S-2W	DUCHESNE	BLUEBELL	
59	4301331285	DUNCAN 3-7A1	NWNW-7-1S-1W	DUCHESNE	BLUEBELL	
9	4301331286	BAR F 2-5B1	SWSE-5-2S-1W	DUCHESNE	BLUEBELL	
5	4301331299	CORNABY 2-14A2	NENE-14-1S-2W	DUCHESNE	BLUEBELL	NW498
62	4301331317	MITCHELL 2-4B1	SESW-4-2S-1W	DUCHESNE	BLUEBELL	9662
63	4301331321	SMITH 2-9C5	SWSW-9-3S-5W	DUCHESNE	ALTAMONT	
64	4301331322	LORANGER 2-24A2	N/2NE-24-1S-2W	DUCHESNE	BLUEBELL	
65	4301331325	UTE 2-6B3	SWSW-6-2S-3W	DUCHESNE	ALTAMONT	1420H621858 / 9651
66	4301331326	MCELPRANG 2-30A1	SWSW-30-1S-1W	DUCHESNE	BLUEBELL	NW625
67	4301331327	SMITH 2-7C5	NESW-7-3S-5W	DUCHESNE	ALTAMONT	1420H622389
68	4301331328	SMITH 2-18C5	SWSE-18-3S-5W	DUCHESNE	ALTAMONT	1420H622392
69	4301331329	UTE 2-24A3	SWNW-24-1S-3W	DUCHESNE	BLUEBELL	1420H621761
70	4301331330	UTE 5-19A2	NWNW-19-1S-2W	DUCHESNE	BLUEBELL	1420H621751
71	4301331332	EDWARDS 3-10B1	SWSW-10-2S-1W	DUCHESNE	BLUEBELL	
72	4301331333	SUNDANCE 4-15A2	SWNE-15-1S-2W	DUCHESNE	BLUEBELL	
	4301331334	LORANGER 6-22A2	SWSW-22-1S-2W	DUCHESNE	BLUEBELL	
74	4301331335	COX 2-36A2	NWNW-36-1S-2W	DUCHESNE	BLUEBELL	
75	4301331338	SMITH 2-6C5	SESW-6-3S-5W	DUCHESNE	ALTAMONT	1420H622388 / UTU70553
76	4301331341	FRESTON 2-7B1	SENE-7-2S-1W	DUCHESNE	BLUEBELL	1420H621970 / 9686
77	4301331356	PEARSON 2-11B2	SENE-11-2S-2W	DUCHESNE	BLUEBELL	
78	4301331378	CHAPMAN 2-4B2	SWNW-4-2S-2W	DUCHESNE	BLUEBELL	
79	4301331390	LAMB 2-16A2	NENE-16-1S-2W	DUCHESNE	BLUEBELL	
80	4301331393	LABRUM 2-23A2	SWSW-23-1S-2W	DUCHESNE	BLUEBELL	
81	4301331820	POWELL 2-16B1	NENE-16-2S-1W	DUCHESNE	BLUEBELL	

# DEVON ENERGY PRODUCTION COMPANY, L.P. UTAH PROPERTIES

						LEASE NO. /
	API NO.	WELL NAME & NO.	LOCATION	COUNTY	FIELD NAME	AGREEMENT NO.
82	4304730164	ROBERTSON UTE ST 1-12B1	SWNE-12-2S-1W	UNITAH	BLUEBELL	96101
83	4304730176	MAY UTE FEDERAL 1-13B1	NWSE-13-2S-1W	UNITAH	BLUEBELL	NW673
84	4304731981	COOK 1-26B1	SWSW-26-2S-1W	UNITAH	BLUEBELL	UTU68998
85	4304732178	CHRISTIANSEN 2-12B1	SWSE-12-2S-1W	UNITAH	BLUEBELL	96101_
86	4304732351	BALLARD 2-15B1	SENE-15-2S-1W	UNITAH	BLUEBELL	
22	4304732744	RICH 2-13B1	NWNW-13-2S-1W	UNITAH	BLUEBELL	NW673_
88	4301320255	SWD 4-11A2	NWNW-11-1S-2W	DUCHESNE	BLUEBELL	96107
89	4301330021	SWD 1-3A2	SESE-3-1S-2W	DUCHESNE	BLUEBELL	
90	4301330346	SWD 2-28A2	NWSE-28-1S-2W	DUCHESNE	BLUEBELL	
91	4301330367	SWD 2-10B1	NWNW-10-2S-1W	DUCHESNE	BLUEBELL	
92	4301330389	SWD 2-26A2	NESW-26-1S-2W	DUCHESNE	BLUEBELL	
93	4301330388	SWD 2-17C5	SENE-17-3S-5W	DUCHESNE	BLUEBELL	

## **RECEIVED**

APR 2 0 2000

DIVISION OF OIL, GAS AND MINING





Department of Natural Resources DIVISION OF OIL, GAS AND MINING

SUNDRY NOTIC	ES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
Do not use this form for proposals to dri	ll new wells, significantly deepen existing wells below cur		6. IF INDIAN, ALLOTEE OR TRIBE NAME:
1. TYPE OF WELL	tal laterals. Use APPLICATION FOR PERMIT TO DRILL fo	rm for such proposals.	7. UNIT or CA AGREEMENT NAME:
OIL WELL X	GAS WELL OTHER		8. WELL NAME and NUMBER:
2. NAME OF OPERATOR			Sundance 4-15A2
DEVON ENERGY PRODUCTI	ON COMPANY, L.C.		9. API NUMBER:
3. ADDRESS OF OPERATOR		PHONE NUMBER	43-013-31333
P.O. BOX 290 NEOLA, UT	04000	435-353-4121	10. FIELD AND POOL, OR WILDCAT: Bluebell/Wasatch
4. LOCATION OF WELL			
FOOTAGES AT SURFACE: 16	00' FNL 1600' FEL		county: Duchesne
QTR/QTR, SEC, TOWNSHIP, RANGE, MERIDIAN	Section 15, T 1S, R2W		STATE: UTAH
11 CHECK APPROPRIATE E	OXES TO INDICATE NATURE OF	NOTICE, REPORT, OR OTHER DA	TA
TYPE OF SUBMISSION		TYPE OF ACTION	
NOTICE OF INTENT	ACIDIZE	DEEPEN	REPERF CURRENT FORMATION
(SUBMIT IN DUPLICATE)	ALTER CASING	FRACTURE TREATMENT	SIDETRACK TO REPAIR WELL
Approximate date work will start	CASING REPAIR	NEW CONSTRUCTION	TEMPORARILY ABANDON
	CHANGE TO PREVIOUS PLANS	OPERATOR CHANGE	TUBING REPAIR
X SUBSEQUENT REPORT	CHANGE TUBING	PLUG AND ABANDON	VENT OR FLARE
( Submit Original Form Only )	CHANGE WELL NAME	PLUG BACK	WATER DIPOSAL
Date of work completion:	CHANGE WELL STATUS	PRODUCTION(START/RESUME)	WATER SHUT OFF
	COMMINGLE PRODUCING FORMATIONS	RECLAMATION OF WELL SITE	X OTHER Spill Report
	CONVERT WELL TYPE	RECOMPLETE-DIFFERENT FORMATION	
12. DESCRIBE PROPOSED OR COMPLETED	DPERATIONS. Clearly show all pertinent details	including dates, depths, volumes, etc.	
	ice: Reported to Devon Energy's , at 2:25PM October 23, 2000 by	**	M, Oct 23, 2000 by a hunter.
2. Approximately 1200' nort	h of the well in the NW/NE section	n 15, T1S, R2W, Duchesne Count	y, Utah
3. Leak in a water disposal	line from the Sundance 4-15A2 to	the water disposal system cause	d by corrosion.
	e south into an unnamed drainage, diluting into the stream water.	oil hardened into wax behind a sr	nall brush dam.
5. Isolated the water dispose Clean up took 3 1/2 days	al line and removed from service. ( :.	Dil was already contained behind t	the dam.
6. Estimated 5 BO, 100-250	BW.		;
Dennis Ingram, Reclamation	Specialist, DOGM, inspected the a	rea prior to the cleanup and after	the cleanup.
NAME ( PLEASE PRINT )	ig Goodnich	TITLE Product	ion Foreman
	0		
(This space for State use only)	-v	DATE 111 10 00	

STATE OF UTAH		FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
SUNDRY NOTICES AND REPORTS ON V	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom- drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such	nole depth, reenter plugged wells, or to proposals.	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL OIL WELL GAS WELL OTHER		8. WELL NAME and NUMBER: SUNDANCE 4-15A2
2. NAME OF OPERATOR: DEVON ENERGY PRODUCTION COMPANY L.P.		9. API NUMBER: 4301331333
3. ADDRESS OF OPERATOR:	PHONE NUMBER:	10. FIELD AND POOL, OR WILDCAT:
P.O. BOX 290 CITY NEOLA STATE UT ZIP 84053	(435) 353-4121	Bluebell/Altamont/Wasatch
FOOTAGES AT SURFACE: 1600' FNL 1600' FEL		COUNTY: DUCHESNE
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNE 15 1S 2W 6		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATU	JRE OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION	
NOTICE OF INTENT	PEN	REPERFORATE CURRENT FORMATION—
12	CTURE TREAT	SIDETRACK TO REPAIR WELL
	V CONSTRUCTION	TEMPORARILY ABANDON
15/ 11/2000	RATOR CHANGE G AND ABANDON	TUBING REPAIR  VENT OR FLARE
	G BACK	WATER DISPOSAL
(Submit Original Form Only)  CHANGE WELL STATUS  PRO	DUCTION (START/RESUME)	WATER SHUT-OFF
Date of work completion:	LAMATION OF WELL SITE	OTHER:
CONVERT WELL TYPE REC	OMPLETE - DIFFERENT FORMATION	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent def	ails including dates, depths, volum	es, etc.
MIRU WORKOVER RIG, PULL TEST RIG ANCHORS PULL PRODUCTION EQUIPMENT PERFORATE WASATCH ( RED BED ) INTERVAL 11,082-11,092' TIH WITH RBP AND PACKER, ISOLATE AND ACIDIZE PERFOR, PULL PLUG AND PACKER, RETURN TO PRODUCTION FROM V	ATIONS 11,082-11,092' NASATCH PERFORATIO	WITH 1500 GALS 15% HCL ACID.
NAME (PLEASE PRINT) JOHN PULLEY	TITLE SR. OPERATION	NS ENGINEER
SIGNATURE JOHN Fully	DATE 9/12/2003	
This space for State use only)		The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s
APPROVED TO THE RESERVE OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE		SEP 1 7 2003

(5/2000)

DIV. OF OIL, GAS & MINING

	FORM 9		
	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS AND MIN		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
SUNDRY	NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill ne drill horizontal lat	ew wells, significantly deepen existing wells below curr terals. Use APPLICATION FOR PERMIT TO DRILL fo	ent bottom-hole depth, reenter plugged wells, or to	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL OIL WELL	GAS WELL OTHER		8. WELL NAME and NUMBER: SUNDANCE 4-15A2
2. NAME OF OPERATOR: DEVON ENERGY PRODU	JCTION COMPANY L.P.		9. API NUMBER: 4301331333
3. ADDRESS OF OPERATOR: P.O. BOX 290	NEOLA STATE UT ZIP	PHONE NUMBER: (435) 353-4121	10. FIELD AND POOL, OR WILDCAT: Bluebell/Altamont/Wasatch
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1600' F	FNL 1600' FEL		COUNTY: DUCHESNE
QTR/QTR, SECTION, TOWNSHIP, RANG	GE, MERIDIAN: SWNE 15 1S 2V	W 6	STATE: UTAH
11. CHECK APPR	OPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
NOTICE OF INTENT	ACIDIZE	DEEPEN	REPERFORATE CURRENT FORMATION—
(Submit in Duplicate)	ALTER CASING	FRACTURE TREAT	SIDETRACK TO REPAIR WELL
Approximate date work will start:	CASING REPAIR	NEW CONSTRUCTION	TEMPORARILY ABANDON
1/25/2004	CHANGE TO PREVIOUS PLANS	OPERATOR CHANGE	TUBING REPAIR
	CHANGE TUBING	PLUG AND ABANDON	VENT OR FLARE
SUBSEQUENT REPORT (Submit Original Form Only)	CHANGE WELL NAME	PLUG BACK	WATER DISPOSAL
Date of work completion:	CHANGE WELL STATUS	PRODUCTION (START/RESUME)	WATER SHUT-OFF
Bate of Work completion.	COMMINGLE PRODUCING FORMATIONS	RECLAMATION OF WELL SITE	OTHER:
	CONVERT WELL TYPE	RECOMPLETE - DIFFERENT FORMATION	
12. DESCRIBE PROPOSED OR COI	MPLETED OPERATIONS. Clearly show all pe	ertinent details including dates, depths, volume	es, etc.
CHANGE OF PLANS ON	SUNDRY SUBMITTED 09/12/03	. ADD ADDTIONAL PERFORAT	TIONS.
MIRU WORKOVER RIG, T	EST RIG ANCHORS.		
PULL PRODUCTION EQU		0.440-01.051/51/11/55-144.0	
PERFORATE WASATCH GUNS.	( RED BEDS) INTERVALS 1104	6-11250', SEVEN INTERVALS,	63', 126 HOLES WITH 3 1/8" HSC
	CKER, SET PLUG AT 11270', PA	CKER AT 10900', FILL AND TE	ST ANNULUS TO 1000 PSI.
	S 11046-11250' WITH 6300 GAL		
SWAB BACK UNTIL PH IS			
PULL PLUG AND PACKER	R, RETURN TO PRODUCTION F	FROM PERFS 11046-13940'.	
tt to the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second	>		RECEIVED
COPY SENT TO OPERATOR			JAN 0 6 2004
initials (HED)	# 		DIV. OF OIL, GAS & MINING
NAME (PLEASE PRINT) JOHN PUL		SR. OPERATION	IS ENGINEER
NAME (PLEASE PRINT)	U nn		J. C. TORTELIT
SIGNATURE ATT	Tulky	DATE1/5/2004	
	<del></del>		

(This space for State use only)

OF UTAH DIVISION OF OIL, GAS, AND MINING

(See Instructions on Revelse See)

Revelled Stee)



	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES	FORM 9
	5. LEASE DESIGNATION AND SERIAL NUMBER: FEE	
SUNDR	Y NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to dri	II new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged w il laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL OIL WEL		8. WELL NAME and NUMBER: SUNDANCE 4-15A2
2. NAME OF OPERATOR: DEVON ENERGY PROI	DUCTION COMPANY, LP	9. API NUMBER: 4301331333
3. ADDRESS OF OPERATOR: P.O. BOX 290	PHONE NUMBER: (435) 353-4	10. FIELD AND POOL, OR WILDCAT: 121 Bluebell/Altamont/Wasatch
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1600	'FNL 1600'FEL	COUNTY: DUCHESNE
QTR/QTR, SECTION, TOWNSHIP, R	ANGE, MERIDIAN: SWNE 15 1S 2W 6	STATE: UTAH
11. CHECK API	PROPRIATE BOXES TO INDICATE NATURE OF NOTICE,	REPORT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION	
NOTICE OF INTENT (Submit in Duplicate)	-   ACIDIZE DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN DEEPEN	REPERFORATE CURRENT FORMATION— SIDETRACK TO REPAIR WELL
Approximate date work will start:	CASING REPAIR NEW CONSTRUCTION	TEMPORARILY ABANDON
	CHANGE TO PREVIOUS PLANS OPERATOR CHANGE	TUBING REPAIR
	CHANGE TUBING PLUG AND ABANDON	VENT OR FLARE
SUBSEQUENT REPORT (Submit Original Form Only)	CHANGE WELL NAME PLUG BACK	WATER DISPOSAL
Date of work completion:	CHANGE WELL STATUS PRODUCTION (START/RESUME	WATER SHUT-OFF
1/24/2004	COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE CONVERT WELL TYPE RECOMPLETE - DIFFERENT FO	OTHER:
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all pertinent details including dates, dept	
ACIDIZE PERFORATION DIVERSION, SWAB TEST RELEASE & POOH W/F		0 1.3 SG BALL SEALERS FOR
		RECEIVED
		FEB 1 2 2004

DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) GEORGE GURR	TITLE PRODUCTION FOREMAN
SIGNATURE LEAN LULE	DATE 2/11/2004

(This space for State use only)

	STATE OF UTAH		FORM 9
1	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ	G	5.LEASE DESIGNATION AND SERIAL NUMBER: FEE
SUNDR	RY NOTICES AND REPORTS ON	I WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	pposals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: SUNDANCE 4-15A2
2. NAME OF OPERATOR: DEVON ENERGY PROD CO L	.P		9. API NUMBER: 43013313330000
3. ADDRESS OF OPERATOR: P.O. Box 290 8345 North 5	PH 125 West, Neola, UT, 84053	ONE NUMBER: 405 228-4248 Ext	9. FIELD and POOL or WILDCAT: BLUEBELL
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1600 FNL 1600 FEL			COUNTY: DUCHESNE
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 15 Township: 01.0S Range: 02.0W Meridian	n: U	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE I	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
A A A A A A A A A A A A A A A A A A A	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
11/1/2012	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
Report Date:	☐ WILDCAT WELL DETERMINATION ✓	OTHER	OTHER: Recompletion
42 DESCRIPE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all p	ortinent details including dates of	·
	ed the proposed recompletion well. Thank you.		Approved by the Utah Division of Oil, Gas and Mining
			Date: November 08, 2012
			Date: 1000 100, 2012
			By: Ust Klint
NAME (DI SACE POUT)	By love with the	TITLE	
NAME (PLEASE PRINT) Julie Patrick	<b>PHONE NUMBER</b> 405 228-8684	TITLE Regulatory Analyst	
SIGNATURE		DATE 40/47/2042	
N/A		10/17/2012	

### DEVON ENERGY PRODUCTION COMPANY LOWER GREEN RIVER/UPPER WASATCH RECOMPLETION PROCEDURE

SUNDANCE 4-15A2 SWNE SECTION 15, T1S, R2W BLUEBELL/ALTAMONT FIELD DUCHESNE COUNTY, UTAH

#### **OBJECTIVE:**

Perforate, acidize, and flowback Lower Green River intervals to determine potential for hydraulic fracture stimulations of the same intervals. If initial results show a favorable oil cut proceed with frac, put well back on pump, and commingle with existing Wasatch producing intervals.

#### JUSTIFICATION:

The Sundance 4-15A2 was originally completed in the Lower Wasatch in 1992. This Lower Wasatch interval was acidized and produced until 1997 when an additional interval in the Wasatch was added and acidized. The Red Bed interval was perforated and acidized in 2004. The well currently makes roughly 39 BOPD, 200 BWPD, and 30 MCFD.

The existing intervals will be temporarily isolated with a CIBP. The Lower Green River intervals will be treated in two stages. The stage 1 interval will be perforated and acidized from 10,434 ft to 10,946 ft at 4 SPF. The stage 2 interval will be perforated and acidized from 9,770 ft to 10,313 ft at 4 SPF. Both stages will be swab tested individually to determine the oil cut and the potential success of a hydraulic fracture stimulation. If results are favorable we will proceed with the frac using a 4 ½" frac string and packer assembly. Stage 1 will be flowed back then isolated with a CIBP before proceeding with the stage 2. It is anticipated that the intervals will be treated at 50-60 bpm using a guar based system and versalite proppant. Maximum surface treating pressure will be 8,500 psi. After fracking and flowing back the LGR, the decision will be made to either drill out CIBP's and commingle with the existing Wasatch intervals or test the LGR separately.

#### **WELL DATA**:

API Number: 43-013-31333

Completion Date: January 1992

TD: 13,984' PBTD: 13,953'

Casing: 10 <sup>3</sup>/<sub>4</sub>" 40.5# S-80/K-55 at 3,498'

7" 23# S-95 set at 10,722'

5" 18# N-80 liner from 10,355 to 13984'

RECEIVED: Oct. 17, 2012

Perforations: Wasatch: January 1992

12,077 – 13,940' 258 intervals, 1052', 2035 holes

Red Beds: November 1997

11,310 – 12,014', 42 intervals, 208', 416 holes 11,046–11,250', 7 intervals, 63', 126 holes

Other: Weatherford one-way CIBP at 12,052'.

Cement Bond: Halliburton Acoustic Cement Bond Log 01-06-92

TOC 400' 400-6900' Poor to fair bond 6900-10950 Excellent bond 10950-11950 Fair to good bond 11950- 13950 Excellent bond

### **WELL HISTORY**

01-04-92	Cleaned out to 13,953'.
01-08-92	Set 7" Guiberson packer at 10,205'.
01-13-92	Perf'd 12,095-13,678' (69 intervals, 69', 69 holes).
01-13-92	Acidized 12,095-13,678' with 20,000 g 15% HCL.
01-15-92	Perf'd 12,077-13,940' (189 intervals, 983', 1966 holes).
01-18-92	Acidized 12,077-13,940' with 110,000 g 15% HCL
01-23-92	Removed 7" Guiberson packer at 10,205'.
01-28-92	Installed submersible pump.
05-25-93	Converted well to rod pump.
08-27-94	Lowered rod pump from 10,100' to 11,000'.
11-10-97	Set PDQ-X one way CIBP at 12052'. Perforated Wasatch 11,310-12,014' 208', 42 intervals, 416 holes. Set Arrow Pak packer at 10,850'.
11-13-97	Dowell acidized with 20,000 gals 15% HCL with 825 ball sealers. Good ball action early.

11-16-97	Laid down rods out of derrick, well flowing.
09-18-98	Put back on pump
01-15-04	Set Baker RBP at 11,270', fill casing and test to 1000 psi. Perforate Red Bed interval 11,046-11,250', 7 int, 63', 126 holes. No pressure.
01-16-04	Set packer at 10,900'. Test annulus to 1000 psi. Swab test
01-20-04	Halliburton acidized perfs 11,046-11,250' with 6300 gals 15% HCL with additives and 130 balls. Good ball action. AIR 5.5 BPM, AIP 4100 psi, max rate 6.2 BPM, max pressure 5700 psi. on vacuum in 30 min. Swab test IFL 7000', FFL 5700'.
01-22-04	Release packer and plug, unable to pull plug thru liner top. Set plug at 10,483', TOH with packer.
01-23-04	TIH, latch onto plug, push to 12,038', work plug up hole thru liner top, TOH. Lost six bottom slips, retainer ring and bottom cup off of plug.
01-25-04	Returned to production, SN at 10,235'.
04-23-04	Lowered seating nipple to 11,161'.

#### PROCEDURE:

- 1. RDMO pumping unit.
- 2. MIRU workover rig with pump and tank. Test deadmen prior to moving in and rigging up.
- 3. POOH with rods and pump, 2" tubing side string, 2-7/8" production tubing.
- 4. RU E-Line and TIH to 11,020' and set CIBP in 5" production casing (4.276" ID), dump 10' of cement on top.
- 5. RIH while hydro testing 2-7/8" production tubing. Set 5" packer at 10,380' and test CIBP to 8,500 psi. Test annulus to 1,000 psi.
- 6. Release packer POOH standing back 2-7/8" production tubing.
- 7. Rig up full lubricator and grease for pressure control. Perforate Stage 1 LGR from 10,946' to 10,434' as per perforation sheet. Correlate perfs to Schlumberger Very

- Enhanced Phasor Induction log dated 10/23/91(Run #1) & 12/7/91(Run #2). RDMO wireline.
- RIH while hydro testing 2-7/8" production tubing & 5" treating packer and set at 10,380'.
- 9. Acidize Stage 1 LGR perfs with 8,600 gal of 15% HCl, standard additives, and 78 bioball sealers for diversion.
- 10. Swab test interval, determine oil cut, rate, and fluid level. Call OKC to discuss results prior to going ahead with frac.
- 11. If decision is made to frac, release packer POOH laying down 2-7/8" production tubing.
- 12. RIH while hydro testing 4 ½" work string crossed over to a 60' 2 7/8" stinger & 5" treating packer and set packer at 10,385'.
- 13. MIRU frac crew to frac Stage 1. Pressure up backside to 1,000 psi and monitor during job. Install relief valves on treating lines and set for max pressure of 8,500 psi.
- 14. Pump job as per design.
- 15. Shut well in. RDMO frac crew. Flowback well up 4 ½"x 2 7/8" work string.
- Keep workover rig on standby.
- 17. When pressure begins to deplete. POOH w/ packer and 4 ½"x 2 7/8" work string.
- 18. RU wireline with full lubricator and grease for pressure control and set 7" CIBP @ 10,345', dump 10' of cement on top..
- 19. RIH while hydro testing 2-7/8" production tubing. Set 7" packer at 9,670' and test CIBP to 8,500 psi. Test annulus to 1,000 psi.
- 20. Release packer POOH standing back 2-7/8" production tubing.
- 21. Rig up full lubricator and grease for pressure control. Perforate Stage 1 LGR from 10,946' to 10,434' as per perforation sheet. Correlate perfs to Schlumberger Very Enhanced Phasor Induction log dated 10/23/91(Run #1) & 12/7/91(Run #2). RDMO wireline.

- 22. RIH while hydro testing 2-7/8" production tubing & 7" treating packer and set at 9,670'. Acidize Stage 2 LGR perfs with 8,600 gal of 15% HCl, standard additives, and 78 bio-ball sealers for diversion.
- 23. Swab test interval prior to rigging up frac crew, determine oil cut, rate, and fluid level.

  Call OKC to discuss results prior to going ahead with frac.
- 24. If decision is made to frac, release packer POOH laying down 2-7/8" production tubing.
- 25. RIH while hydro testing 4 1/2" work string and set 7" packer at 9,760'.
- 26. MIRU frac crew to frac Stage 2. Pressure up backside to 1,000 psi and monitor during job. Install relief valves on treating lines and set for max pressure.
- 27. Pump job as per design.
- 28. Shut well in. RDMO frac crew. Flowback well up 4 ½" work string.
- 29. Keep workover rig on standby.
- 30. When pressure begins to deplete. POOH w/ packer and 4 ½" frac string.
- 31. Consult with OKC prior to drilling out CIBP at 10,345' and 11,020'
- 32. Run production equipment and put well on pump.

	No.	Perforated	d Interval	Feet	SPF	Holes	Comments
		<u>Top</u>	Bottom				6900-10950 Excellent bond
Stage 1	1	10,945	10,946	1	4	4	
Ŭ	2	10,908	10,909	1	4	4	Perforating 7 intervals through 5" liner &
	3	10,877	10,878	1	4	4	7" intermediate from 10,355' - 10,722'
	4	10,841	10,842	1	4	4	
	5	10,790	10,791	1	4	4	
	6	10,745	10,746	1	4	4	
	7	10,716	10,717	1	4	4	
	8	10,654	10,655	1	4	4	
	9	10,587	10,588	1	4	4	
	10	10,529	10,530	1	4	4	
	11	10,496	10,497	1	4	4	
	12	10,462	10,463	1	4	4	
	13	10,434	10,435	1	4	4	
Stage 2	1	10,312	10,313	1	4	4	
	2	10,279	10,280	1	4	4	
	3	10,227	10,228	1	4	4	
	4	10,209	10,210	1	4	4	
	5	10,119	10,120	1	4	4	
	6	10,077	10,078	1	4	4	
	7	10044	10045	1	4	4	
	8	9979	9980	1	4	4	
	9	9945	9946	1	4	4	
	10	9927	9928	1	4	4	
	11	9908	9909	1	4	4	
	12	9788	9789	1	4	4	
	13	9770	9771	1	4	4	

	Number of Intervals	13
Stage 1	Gross Interval	512
Stage 1	Net Feet of Perforations	13
	Number of Holes	52

	No I am a fill to more la	40
	Number of Intervals	13
Stane 2	Gross Interval	543
Olage 2	Net Feet of Perforations	13
	Number of Holes	52

#### Well Data

Surface Csg: 10 3/4" 40.5# S-80/K-55 at 3,498' Intermediate Csg: 7" 23# S-95 set at 10,722' Liner: 5" 18# N-80 liner from 10,355 to 13984'

Frac String: 4 1/2 P-110 crossed to 2 7/8" w/ 5" treating packer set at 10358' for stage 1
Frac String: 4 1/2 P-110 w/ 7" treating packer set at 9670' for stage 2

5" CIBP set at 11,020' to isolate existing perfs and set 7" CIBP at 10,345' to isolate stage 1

### Division of Oil, Gas and Mining OPERATOR CHANGE WORKSHEET (for state use only)

ROUTING	
CDW	

X - Change of Operator (Well Sold)	Operator Name Change/Merger							
The operator of the well(s) listed below has chan	8/29/2014							
FROM: (Old Operator):	<b>TO:</b> ( New O	perator):		<u> </u>				
DEVON ENERGY PRODUCTION COMPANY I		LINN OPERA		N4115				
333 WEST SHERIDAN AVENUE		1999 BROAD						
OKLAHOMA CITY OK 73102-5015				DENVER CO	80202			
				303-999-4275				
CA No.				Unit:	N/A			
WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
See Attached List					<u></u>			<u>[</u>
OPERATOR CHANGES DOCUMENT	ATI(	ON						
Enter date after each listed item is completed								
1. (R649-8-10) Sundry or legal documentation wa				-		9/16/2014		
2. (R649-8-10) Sundry or legal documentation wa				-		9/16/2014		
3. The new company was checked on the <b>Depart</b>		of Con	nmerce					10/8/2014
4a. Is the new operator registered in the State of U		<b>.</b> '		Business Numl	ber:	9031632-0143	•	
5a. (R649-9-2)Waste Management Plan has been re				Yes	-			
<ul><li>5b. Inspections of LA PA state/fee well sites comp</li><li>5c. Reports current for Production/Disposition &amp; S</li></ul>				N/A 10/8/2014	-			
6. Federal and Indian Lease Wells: The BI			a DIA I		-	ma ahanaa		
or operator change for all wells listed on Feder					BLM	=	BIA	NOT YET
7. Federal and Indian Units:	ai Ui i	iliulaii i	icases (	л.	DLM	NOTIE	DIA	_ NOT TEL
The BLM or BIA has approved the successor	r of ur	nit one:	ator fo	r wells listed on	•	N/A		
8. Federal and Indian Communization Ag		_			•	IVA	•	
The BLM or BIA has approved the operator			•	•		N/A		
9. Underground Injection Control ("UIC"					orm 5 Trai		ritu to	
Inject, for the enhanced/secondary recovery un							9/ <u>24</u> /2014	1
DATA ENTRY:	no pro	Joet 10	t tile w	uter disposar we	n(s) nsieu o	<b>11.</b>	312412V14	<u>*</u>
1. Changes entered in the Oil and Gas Database	on:			10/8/2014				
2. Changes have been entered on the Monthly O		or Cha	nge St		<b>-</b> :	10/8/2014		
3. Bond information entered in RBDMS on:				10/8/2014			•	
4. Fee/State wells attached to bond in RBDMS or				10/8/2014	-			
5. Injection Projects to new operator in RBDMS	on:			N/A	_			
6. Receipt of Acceptance of Drilling Procedures f	- A D	) ) ) ) )			-	10/00014		
7. Surface Agreement Sundry from NEW operator				ille manituad on:		10/8/2014	•	
BOND VERIFICATION:	Ont	CC Sul	acc wc	ans received on.		9/16/2014	-	
1. Federal well(s) covered by Bond Number:				NMB000501				
2. Indian well(s) covered by Bond Number:				NMB000501	-			
3a. (R649-3-1) The NEW operator of any state/fe	e wel	l(s) list	ed cov		- umber	LPM9149893		
3b. The FORMER operator has requested a release				•	N/A	21 11171 17073		
LEASE INTEREST OWNER NOTIFIC			aviii u	oong on,	NA	•		
4. (R649-2-10) The NEW operator of the fee wells			ntacted	and informed b	v a letter fe	om the Division		
of their responsibility to notify all interest owne	rs of t	this cha	inge on	: wie miorinee (	10/8/2014			
COMMENTS:			-0, 011					

## Devon Energy Production Company, L.P. N1275 to Linn Operating, Inc N4115 Effective 8/29/2014

Well Name	Section	Township	Range AP	API	Entity	Mineral	Well	Well
				Number	/	Lease	Type	Status
SWD 4-11A2	11	010S	020W	4301320255	99990	Fee	WD	Α
VIRGIL MECHAM 1-11A2	11	0108	020W	4301330009		Fee	WD	A
1-3A2	3	0108	020W	4301330021		Fee	WD_	Α
BLUEBELL 2-28A2	28	010S	020W	4301330346	99990	Fee	WD	A
SALERATUS 2-17C5	17	0308	050W	4301330388	99990	Fee	WD	Α
CENTRAL BLUEBELL 2-26A2	26	0108	020W	4301330389	99990	Fee	WD	Α
BALLARD 2-15B1	15	020S	010W	4304732351	11476	Fee	WD	Α
GALLOWAY #3-14B2	14	020S	020W	4301351741		Fee	ow	APD
GALLOWAY #3-12B2	12	020S	020W	4301351742	<b></b>	Fee	ow	APD
GALLOWAY 4-14B2	14	020S	020W	4301351818		Fee	OW	APD
MORRIS #3-8B1	8	020S	010W	4301351836/		State	OW	APD
FRITZ #3-24A2	24	010S	020W	4301351837	<del></del>	Fee	ow	APD
	14	010S 020S	020W	4301351739		Fee	ow	DRL
GALLOWAY #2-14B2	32		010W	4301351759		Fee	ow	OPS
EMERALD 2-32A1		0108		43013300397		Fee	ow	P
CLYDE MURRAY 1-2A2	2	0108	020W					P
VICTOR C BROWN 1-4A2	4	0108	020W	4301330011		Fee	OW	
DOUG BROWN 2-4A2	4	0105	020W	4301330017		Fee	OW	P
L BOREN U 3-15A2	15	010S	020W	4301330086	·	Fee	OW	P
LAMICQ-URTY U 3-17A2	17	010S	020W	4301330099		Fee	OW	P
L BOREN U 5-22A2	22	010S	020W	4301330107	- <del>v</del> -	Fee	OW_	P
L BOREN U 4-23A2	23	010S	020W	4301330115		Fee	OW	P
TOMLINSON FED 1-25A2	25	0108	020W	4301330120		Federal	OW	P
WOODWARD 1-21A2	21	010S	020W	4301330130	5665	Fee	OW	P
LAMICQ 1-20A2	20	010S	020W	4301330133	5400	Fee	GW	P
L RBRTSN ST 1-1B2	1	020S	020W	4301330200	5410	State	ow	P
SMITH ALBERT 1-8C5	8	030S	050W	4301330245	5490	Fee	ow	P
FRESTON ST 1-8B1	8	0208	010W	4301330294	5345	Fee	ow	P
GEORGE MURRAY 1-16B1	16	020S	010W	4301330297	5950	Fee	ow	P
LAMICQ-URTY U 4-5A2	5	0108	020W	4301330347		Fee	OW	P
H G COLTHARP 1-15B1	15	020S	010W	4301330359		Fee	ow	P
STATE 3-18A1	18	010S	010W	4301330369		Fee	OW	P
LAMICQ 2-6B1	6	020S	010W	4301330809		Fee	ow	P
DILLMAN 2-28A2	28	0108	020W	4301330821		Fee	ow	P
HAMBLIN 2-26-A2	26	0108	020W	4301330903	- <del></del>	Fee	ow	P
JOHN 2-3-B2	3	020S	020W	4301330975		Fee	ow	P
LAMICQ-ROBERTSON ST 2-1B2	1	0205	020W	4301330995		Fee	OW	P
UTE TRIBAL 2-7A2	7	010S	020W	4301331009		Indian	ow	P
HATCH 2-3B1	3	0208	010W	4301331147		Fee	ow	P
NORLING 2-9B1	9					<del></del>		
		0208	010W	4301331151,		Fee	OW	P
SHAW 2-27A2	27	0108	020W	4301331184		Fee	OW	P
LAMICQ-URRITY 4-17A2	17	0108	020W	4301331190		Fee	OW	P
LAMICQ 2-20A2	20	0108	020W	4301331191	-	Fee	ow	P
FRESTON 2-8B1	8	0208	010W	4301331203		Fee	OW	P
WISSE 3-35A2	35	010S	020W	4301331215		Fee	ow	P
MECCA 2-8A2	8	010S	020W	4301331231		Fee	OW	P
SWYKES 2-21A2	21	010S	020W	4301331235	-	Fee	ow	P
SHERMAN 2-12B2	12	020S	020W	4301331238	11009	Fee	ow	P
DUNCAN 4-2A2	2	010S	020W	4301331276	11258	Fee	GW	P
HAMBLIN 3-9A2	9	010S	020W	4301331278	11094	Fee	GW	P
BAR-F 2-5B1	5	020S	010W	4301331286		Fee	ow	P
SMITH 2-9C5	9	030S	050W	4301331321		Fee	ow	P
LORANGER 2-24A2	24	010S	020W	4301331322	<del></del>	Fee	ow	P
UTE 2-6B3	6	020S	030W	4301331325	<del></del>	Indian	ow	P
MCELPRANG 2-30A1	-						<del></del>	
MCELPKANG 2-3UA1	30	010S	010W	4301331326	<u>v 11252</u>	Fee	OW_	P

## Devon Energy Production Company, L.P. N1275 to Linn Operating, Inc N4115 Effective 8/29/2014

Well Name	Section	Township	Range AP	API	Entity	Mineral	Well	Well
		1		Number	,	Lease	Type	Status
SMITH 2-7C5	7	0308	050W	4301331327	11324	Indian	ow	P
SMITH 2-18C5	18	0308	050W	4301331328	11336	Indian	OW	P
UTE 2-24A3	24	0108	030W	4301331329	11339	Indian	OW	P
UTE 5-19A2	19	010S	020W	4301331330	11277	Indian	OW	P
EDWARDS 3-10B1	10	020S	010W	4301331332	11264	Fee	ow	P
SUNDANCE 4-15A2	15	0108	020W	4301331333	11269	Fee	OW	P
LORANGER 6-22A2	22	0108	020W	4301331334~	11335	Fee	OW	P
COX 2-36A2	36	010S	020W	4301331335/	11330	Fee	ow	P
SMITH 2-6C5	6	030S	050W	4301331338/	11367	Indian	OW	P
FRESTON 2-7B1	7	020S	010W	4301331341	11338	Fee	ow	P
PEARSON 2-11B2	11	020S	020W	4301331356	11359	Fee	OW	P
CHAPMAN 2-4B2	4	020S	020W	4301331378	11485	Fee	ow	P
LAMB 2-16A2	16	010S	020W	4301331390	11487	Fee	OW	P
LABRUM 2-23A2	23	0108	020W	4301331393	11514	Fee	OW	P
POWELL 2-16B1	16	020S	010W	4301331820/	12342	Fee	OW	P
BOWMAN 5-5A2	5	0108	020W	4301332202	13043	Fee	OW	P
BOREN 4-9A2	9	0108	020W	4301332203	13079	Fee	OW	P
BLANCHARD 3-10A2	10	0108	020W	4301332223	13149	Fee	OW	P
SQUIRES 3-8A2	8	010S	020W	4301332227	13176	Fee	OW	P
BROWN 3-4A2	4	0108	020W	4301332684	14673	Fee	OW	P
GALLOWAY 3-11B2	11	020S	020W	4301334304	18527	Fee	OW	P
OWL AND THE HAWK 3-9C5	9	030S	050W	4301351214	1,8649	Fee	OW	P
Bingham #3-4B1	4	020S	010W	4301351464	18825	Fee	OW	P
RED MOUNTAIN 3-5B1	5	020S	010W	4301351632/	18954	Fee	OW	P
MECHAM #3-1B2	1	020S	020W	4301351844	19082	State	OW	P
MIKE AND SHELLEY #3-4B2	4	0208	020W	4301351845	19083	Fee	ow	P
RBRTSN UTE ST 1-12B1	12	020S	010W	4304730164	5475	Fee	ow	P
MAY UTE FED 1-13B1	13	020S	010W	4304730176	5435	Fee	OW	P
COOK 1-26B1	26	020S	010W	4304731981	11212	Fee	ow	P
CHRISTIANSEN 2-12B1	12	020S	010W	4304732178	11350	Fee	OW	P
RICH 2-13B1	13	020S	010W	4304732744	12046	Fee	ow	P
THOMAS 4-10B1	10	020S	010W	4304734080	13284	Fee	ow	P
HAMAKER 3-12B1	12	020S	010W	4304752294	18650	Fee	OW	P
BETTS 2-26B1	26	020S	010W	4304752435	18698	Fee	ow	P
STATE 1-10A2 (3-10C)	10	010S	020W	4301330006	5860	State	GW	S
L BOREN U 6-16A2	16	010S	020W	4301330123	5750	Fee	ow	S
UTE TRIBAL 1-6B3	6	020S	030W	4301330136	5705	Indian	OW	S
MAUREL TAYLOR FEE 1-36A2	36	010S	020W	4301330143 >		Fee	ow	S
CAMPBELL UTE ST 1-7B1	7	020S	010W	4301330236	<del></del>	Indian	ow	S
D L GALLOWAY 1-14B2	14	020S	020W	4301330564		Fee	ow	S
MARK 2-25A2	25	010S	020W	4301331232		Fee	ow	S
MITCHELL 2-4B1	4	020S	010W	4301331317/	<del></del>	Fee	OW	S

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES

	DIVISION OF OIL, GAS AND MI	NING	5. LEASE DESIGNATION AND SERIAL NUMBER: See Attached Well List
SUNDR	Y NOTICES AND REPORTS	S ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	I new wells, significantly despen existing wells below cur I laterals. Use APPLICATION FOR PERMIT TO DRILL I		7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL			8. WELL NAME and NUMBER:
OIL WELL	GAS WELL OTHER	See Attached Well List	See Attached Well List
LINN OPERATING, INC	KIY115		9. API NUMBER:
ADDRESS OF OPERATOR: 1999 Broadway, Suite 3700	Denver STATE CO ZIP	PHONE NUMBER: (303) 999-4275	10. FIELD AND POOL, OR WILDCAT: Bluebell/Altamont
LOCATION OF WELL FOOTAGES AT SURFACE:			COUNTY: Duchsene/Uintah
OTRIOTR, SECTION, TOWNSHIP, RA	UNGE, MERIDIAN:		STATE: UTAH
CHECK APP	PROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REF	PORT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will start:  SUBSEQUENT REPORT (Submit Original Form Only)  Date of work completion:	ACIDIZE  ALTER CASING  CASING REPAIR  CHANGE TO PREVIOUS PLANS  CHANGE TUBING  CHANGE WELL NAME  CHANGE WELL STATUS  COMMINGLE PRODUCING FORMATIONS	DEEPEN FRACTURE TREAT NEW CONSTRUCTION OPERATOR CHANGE PLUG AND ABANDON PLUG BACK PRODUCTION (START/RESUME) RECLAMATION OF WELL SITE	REPERFORATE CURRENT FORMATION  SIDETRACK TO REPAIR WELL  TEMPORARILY ABANDON  TUBING REPAIR  VENT OR FLARE  WATER DISPOSAL  WATER SHUT-OFF  OTHER: CHANGE OF
Effective 08/29/2014, Chunder the terms and con	ditions of the leases for operations	ergy Production Company, LP,	to Linn Operating, Inc. is responsible
Effective 08/29/2014, Chunder the terms and conblanket state bond numb Attached is a list of wells Devon Energy Productions 333 West Sheridan Aven	completed operations. Clearly show all angle of Operator from Devon Enditions of the leases for operations per LPM9149893.  That are associated with this Chair Company, LP 275	pertinent details including dates, depths, vol ergy Production Company, LP, s conducted on the leased land	to Linn Operating, Inc. is responsib
Effective 08/29/2014, Chunder the terms and conblanket state bond numb Attached is a list of wells Devon Energy Productio 333 West Sheridan Averoklahoma City, OK 7310 John D. Raines	completed operations. Clearly show all angle of Operator from Devon Enditions of the leases for operations per LPM9149893.  That are associated with this Chair Company, LP 275	pertinent details including dates, depths, vol ergy Production Company, LP, s conducted on the leased land	to Linn Operating, Inc. is responsibles or a portion thereof under their
Effective 08/29/2014, Chunder the terms and conblanket state bond numb Attached is a list of wells Devon Energy Productio 333 West Sheridan Aven Oklahoma City, OK 7310	completed operations. Clearly show all angle of Operator from Devon Enditions of the leases for operations per LPM9149893.  That are associated with this Chair Company, LP 275	pertinent details including dates, depths, vol ergy Production Company, LP, s conducted on the leased land	to Linn Operating, Inc. is responsibles or a portion thereof under their
Effective 08/29/2014, Chunder the terms and conblanket state bond numb  Attached is a list of wells  Devon Energy Productio 333 West Sheridan Aver Oklahoma City, OK 7310  John D Raines Vice President	completed operations. Clearly show all planage of Operator from Devon Enditions of the leases for operations over LPM9149893.  It that are associated with this Chair Company, LP N1375 nue 02-5015	pertinent details including dates, depths, vol ergy Production Company, LP, s conducted on the leased land	to Linn Operating, Inc. is responsibles or a portion thereof under their  SEP 16 2014
Effective 08/29/2014, Chunder the terms and conblanket state bond numb Attached is a list of wells Devon Energy Productio 333 West Sheridan Aver Oklahoma City, OK 7310	completed operations. Clearly show all planage of Operator from Devon Enditions of the leases for operations over LPM9149893.  It that are associated with this Chair Company, LP N1375 nue 02-5015	pertinent details including dates, depths, volergy Production Company, LP, s conducted on the leased landinge of Operator.	to Linn Operating, Inc. is responsibles or a portion thereof under their  SEP 16 2014

DIV. OIL GAS & MINING
BY: Reche Medera

(See Instructions on Reverse Side)

STATE OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY	A Bessell		I Statement belief	List for State/Fe	THE PERSON NAMED IN	Giala	State	County
Well Name	API#	Legal Location	Producing Status	Well Type	Lease Type	Field		
BAR F 2-5B1	430133128600	005-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BINGHAM 3-4B1	430135146400	004-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BLANCHARD 3-10A2	430133222300	010-0015-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BOREN 1-14A2-	430133003500	014-001S-002W	Shut-In	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BOREN 3-11A2	430133119200	011-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BOREN 3-15A2	430133008600	015-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BOREN 4-23A2	430133011500	023-0015-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BOREN 4-9A2	430133220300	009-0015-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BOREN 5-22A2	430133010700	022-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BOREN 6-16A2	430133012300	016-001S-002W	Producing	OIL .	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BOWMAN 5-5A2	430133220200	005-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BROWN DOUG 2-4A2	430133001700	004-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BROWN VICTOR C 1-4A2	430133001100	004-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BROWN 3-4A2	430133268400	004-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
CAMPBELL UTE ST 1-7B1	430133023600	007-002S-001W	Shut-In	OIL	INDIAN	BLUEBELL ALTAMONT	UT	DUCHESNE
CHAPMAN 2-4B2	430133137800	004-002S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
CLYDE MURRAY 1-2A2	430133000500	002-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
COLTHARP 1-15B1	430133035900	015-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
CORNABY 2-14A2 (RECOMP)	430133129900	014-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
COX 2-36A2	430133133500	036-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	υT	DUCHESNE
DILLMAN 2-28A2	430133082100	028-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
DUNCAN 4-2A2	430133127600	002-0015-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
EDWARDS 3-10B1	430133133200	010-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
FRESTON STATE 1-8B1	430133029400	008-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
FRESTON 2-7B1	430133134100	007-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
FRESTON 2-8B1	430133120300	008-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
GALLOWAY 1-14B2	430133056400	014-002S-002W	Shut-In	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
GALLOWAY 3-11B2	430133430400	011-002S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	υτ	DUCHESNE
HAMBLIN 2-26A2	430133090300	026-001S-002W	Shut-In	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
HAMBLIN 3-9A2	430133127800	009-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
HATCH 2-3B1	430133114700	003-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
IOHN 2-3B2	430133097500	003-002S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
LABRUM 2-23A2	430133139300	023-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
LAMB 2 16A2	430133139000	016-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
LAMICQ ROBERTSON 1-1B2	430133020000	001-002S-002W	Producing	OIL	STATE	BLUEBELL ALTAMONT	UT	DUCHESNE

**Devon Energy Production Company, LP** 

LAMICQ ROBERTSON 2-1B2	430133099500	001-0025-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
LAMICQ URRUTY 3-17A2	430133009900	017-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
LAMICQ URRUTY 4-17A2	430133119000	017-0015-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	υT	DUCHESNE	
LAMICQ URRUTY 4-5A2	430133034700	005-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	υτ	DUCHESNE	
LAMICQ 1-20A2	430133013300	020-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	ÜΤ	DUCHESNE	
LAMICQ 2-20A2	430133119100	020-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
LAMICQ 2-6B1	430133080900	006-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
LORANGER 2-24A2	430133132200	024-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
LORANGER 6-22A2	430133133400	022-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	υτ	DUCHESNE	
MARK 2 25A2	430133123200	025-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
MCELPRANG 2-30A1	430133132600	030-001S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
MECCA 2-8A2	430133123100	008-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
MECHAM VIRGIL B 1-11A2 SWD	430133000900	011-001S-002W	Injecting	SWD	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
		*	, ,						
MECHAM 3-1B2	430135184400	1-2S-2W	Producing	OIL	STATE	BLUEBELL ALTAMONT	UT	DUCHESNE	
MIKE AND SHELLEY 3-4B2	430135184500	4-2S-2W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
MITCHELL 2-4B1	430133131700	004-002S-001W	Shut-In	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
MURRAY GEORGE 1-16B1	430133029700	016-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
NORLING 2-9B1	430133115100	009-002S-001W	Producing	Off	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
OWL AND THE HAWK 3-9C5	430135121400	9-003S-005W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
PEARSON 2-11B2	430133135600	011-002S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
POWELL 2 16B1	430133182000	016-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
RED MOUNTAIN 3-5B1	430135163200	05-2S-1W	Producing	OIL	FEE	BLUEBELL ALTAMONT	ut	DUCHESNE	
SHAW 2-27A2	430133118400	027-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
SHERMAN 2-12B2	430133123800	012-002S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
SMITH ALBERT 1-8C5	430133024500	008-003S-005W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
SMITH 2-18C5	430133132800	018-003S-005W	Producing	OIL	INDIAN	BLUEBELL ALTAMONT	UT	DUCHESNE	
SMITH 2-6C5	430133133800	006-003S-005W	Producing	OIL	INDIAN	BLUEBELL ALTAMONT	UT	DUCHESNE	
SMITH 2-7C5	430133132700	007-003S-005W	Producing	OIL	INDIAN	BLUEBELL ALTAMONT	UT	DUCHESNE	
SMITH 2-9C5	430133132100	009-003S-005W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
SQUIRES 3-8A2	430133222700	008-0015-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
STATE 1-10A2	430133000600	010-0015-002W	Producing	OIL	STATE	BLUEBELL ALTAMONT	UT	DUCHESNE	
STATE 3-18A1	430133036900	018-001S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	
SUNDANCE 4 15A2 (BOREN)	430133133300	015-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	Ο:
SWD ANDERSON 2-28A2	430133034600	028-001S-002W	Injecting	SWD	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	<u> </u>
SWD HAMBUN 2-26A2	430133038900	026-001S-002W	Injecting	SWD	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	_ ≥ ;
SWD SALERATUS 2-17C5	430133038800	017-003S-005W	Injecting	SWD	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	ECEIVED
SWD 1-3A2	430133002100	003-001S-002W	Injecting	SWD	FEE	BLUEBELL ALTAMONT	υT	DUCHESNE	<u> </u>
SWD 4-11A2	430132025500	011-001S-002W	Injecting	SWD	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE	<u>C</u>
STES TANK		J=2 00-0 004V	,	****	-				

SWYKES 2 21A2	430133123500	021-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
TAYLOR MAUREL FEE 1-36A2	430133014300	036-001S-002W	Shut-In	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
TOMLINSON 1 25A2	430133012000	025-001S-002W	Producing	OIL	INDIAN	BLUEBELL ALTAMONT	UT	DUCHESNE
UTE TRIBAL 2-7A2	430133100900	007-001S-002W	Producing	OiL	INDIAN	BLUEBELL ALTAMONT	UT	DUCHESNE
UTE TRIBAL 5-19A2	430133133000	019-001S-002W	Producing	OIL	INDIAN	BLUEBELL ALTAMONT	UT	DUCHESNE
UTE 1-6B3	430133013600	006-002S-003W	Shut-In	OIL	INDIAN	BLUEBELL ALTAMONT	UT	DUCHESNE
UTE 2-24A3	430133132900	024-001S-003W	Producing	OIL	INDIAN	BLUEBELL ALTAMONT	UT	DUCHESNE
UTE 2-6B3	430133132500	006-002S-003W	Producing	OIL	INDIAN	BLUEBELL ALTAMONT	υT	DUCHESNE
WISSE 3-35A2	430133121500	035-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	υT	DUCHESNE
WOODWARD 1-21A2	430133013000	021-001S-002W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	DUCHESNE
BALLARD 2-15B1 SWD	430473235100	015-002S-001W	Injecting	SWD	FEE	BLUEBELL ALTAMONT	υτ	UINTAH
BETTS 2-26B1	430475243500	26-2S-1W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	UINTAH
CHRISTENSEN 2-12B1	430473217800	012-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	UINTAH
COOK 1-26B1	430473198100	026-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	UINTAH
HAMAKER 3-12B1	430475229400	12-25-1W	Producing	OIL	FEE	BLUEBELL ALTAMONT	υT	UINTAH
MAY UTE FED 1-13B1	430473017600	013-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	υT	UINTAH
RICH 2-13B1	430473274400	013-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	UINTAH
ROBERTSON UTE STATE 1-12B1	430473016400	012-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	UINTAH
THOMAS 4-10B1	430473408000	010-002S-001W	Producing	OIL	FEE	BLUEBELL ALTAMONT	UT	UINTAH

RECEIVED
SEP 16 2014

DIV. OF OIL, GAS & MINING

#### FORM 9

	DEPARTMENT OF NATURAL RESOU		
	DIVISION OF OIL, GAS AND MI	NING	5. LEASE DESIGNATION AND SERIAL NUMBER: See Attached Well List
SUNDR	Y NOTICES AND REPORT	S ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
			7. UNIT or CA AGREEMENT NAME:
drill horizontal	new wells, significantly deepen existing wells below culaterals. Use APPLICATION FOR PERMIT TO DRILL	from for such proposals.	
OIL WELL	GAS WELL OTHER	See Attached Well List	8 WELL NAME and NUMBER: See Attached Well List
NAME OF OPERATOR:			9. API NUMBER:
LINN OPERATING, INC			
ADDRESS OF OPERATOR: 1999 Broadway, Suite 3700	Denver STATE CO	,80202 PHONE NUMBER: (303) 999-4275	10. FIELD AND POOL, OR WILDCAT: Bluebell/Altamont
LOCATION OF WELL	3.014		
FOOTAGES AT SURFACE:	DEL STANDARD BANGER		COUNTY: Duchsene
QTR/QTR, SECTION, TOWNSHIP, RA	NGE, MERIDIAN:		STATE:
		de dicible de de des	UTAH
CHECK APP	PROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REPO	ORT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
NOTICE OF INTENT	ACIDIZE	DEEPEN	REPERFORATE CURRENT FORMATION
(Submit in Duplicate)	ALTER CASING	FRACTURE TREAT	SIDETRACK TO REPAIR WELL
Approximate date work will start:	CASING REPAIR	NEW CONSTRUCTION	TEMPORARILY ABANDON
	CHANGE TO PREVIOUS PLANS	OPERATOR CHANGE	TUBING REPAIR
	CHANGE TUBING	PLUG AND ABANDON	VENT OR FLARE
SUBSEQUENT REPORT	CHANGE WELL NAME	PLUG BACK	WATER DISPOSAL
(Submit Original Form Only)	CHANGE WELL STATUS	PRODUCTION (START/RESUME)	WATER SHUT-OFF
Date of work completion:	COMMINGLE PRODUCING FORMATIONS	RECLAMATION OF WELL SITE	OTHER: CHANGE OF
	CONVERT WELL TYPE	RECOMPLETE - DIFFERENT FORMATION	OPERATOR
under the terms and con- planket state bond numb	cations for Permit to Drilf (APD) the n Company, LP nue	s conducted on the leased lands	or a portion thereof under their
NAME (PLEASE PRINT) RUSSEIL C	giste	TITLE Asset Manager DATE 9/第1/4	
is space for StatePPR			RECEIVED

(5/2000)

OCT 0 8 2014

DIV. OIL GAS & MINING (See Instructions on Reverse Side)

BY: Reconcerned

SEP 16 2014

DIV. OF OIL, GAS & MINING

## STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL. GAS AND MINING

	DEPARTMENT OF NATUR	AL RESOUR	CES			
	DIVISION OF OIL, GAS	S AND MIN	ING		5 LEASE DESIGNATIO	N AND SERIAL NUMBER:
SUNDRY	NOTICES AND R	EPORTS	ON WEL	LS	6. IF INDIAN, ALLOTTE	E OR TRIBE NAME:
Do not use this form for proposels to drift n	new wells, significantly despen existing	wells below cure	set buttom-hole dept	th, reenter plugged wells, or to	7. UNIT or CA AGREEM	ENT NAME:
1. TYPE OF WELL OIL WELL		OTHER	titi tot audit proposa		8. WELL NAME and NU	MBER:
2. NAME OF OPERATOR:					Misc.	
LINN OPERATING, INC.						
3. ADDRESS OF OPERATOR: 1999 Broadway, Ste #3700	Y Denver	CO Za	80202	(303) 999-4016	10. FIELD AND POOL,	OR WILDCAT:
4. LOCATION OF WELL FOOTAGES AT SURFACE:	3111				COUNTY: UINTAI	4
FOUTAGES AT SUMPAGE:					COUNTY: UIN I AL	
QTR/QTR, SECTION, TOWNSHIP, RAN	IGE, MERIDIAN: 14	18 2	W		STATE:	JTAH
11. CHECK APPI	ROPRIATE BOXES TO	INDICAT	E NATURE	OF NOTICE, REP	ORT, OR OTHER	DATA
TYPE OF SUBMISSION			T	YPE OF ACTION		
☐ NOTICE OF INTENT	ACIDIZE		DEEPEN		REPERFORATI	ECURRENT FORMATION
(Submit in Duplicate)	ALTER CASING		FRACTURE	TREAT	SIDETRACK TO	REPAIR WELL
Approximate data work will start:	CASING REPAIR		MEW CONS	TRUCTION	TEMPORARILY	ABANDON
	CHANGE TO PREVIOUS PL	ANS	OPERATOR	CHANGE	TUBING REPAI	R
SUBSEQUENT REPORT	CHANGE TUBING		PLUG AND		VENT OR FLAF	RE .
SUBSEQUENT REPORT (Submit Original Form Only)	CHANGE WELL NAME		PLUG BACK		WATER DISPO	
Date of work completion:	CHANGE WELL STATUS		=	ON (START/REBUME)	WATER SHUT-	
	CONVERT WELL TYPE	FORMATIONS	=	ION OF WELL SITE TE - DIFFERENT FORMATION		luded wells from inge of Operator
12. DESCRIBE PROPOSED OR CO	OMPLETED OPERATIONS. CIO	arly show all po	ertinent details inc	duding dates, depths, valu	mes, etc.	
Do not process Change o wells.						r the following
43-013-31192 BOREN: 43-013-51846 MIKE AN 43-013-31299 CORNAE 43-013-30035 FLY/DIA	ID SHELLEY #4-14A2 BY 2-14A2	Oil Well	Approved p Producing	BLUEBELL DUC ermit (APD) BLUI BLUEBELL DUC UEBELL DUCHE	EBELL DUCHES HESNE 15-2W	NE 1S-2W Sec14 Sec 14
The Devon transaction to Sections 11 amd 14 of T1	Linn Energy allowed El S, 2W so EP Energy no	P Energy to ow owns th	o exercise th	neir preferential rigl	nt to purchase the	leases and wells in
NAME (PLEASE PRINT) Debbie 6	nan//	· · · · · · · · · · · · · · · · · · ·	TITU	Reg. Compliand	ce Supervisor	
SIGNATURE	Man-		DATI	9/23/2014		
This space for State use gaily)						
, <del></del>						-n
					RECEIV	ヒレ

(5/2000)

(See Instructions on Reverse Side)

SEP 2 3 2014